THE LANCET.

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LECTURES ON AMPUTATION,

AND ON THE

Nature, Progress, and Terminations of the Injuries for which it is required.

(Delivered at Sydenham Coll. Med. School.)

BY RUTHERFORD ALCOCK, K.C.T.,&c.

LECTURE XII.

On the diseased actions supervening upon primary amputation. Erroneous premises on which certain conclusions in reference to the questions of primary and secondary amputations are based. Analysis of causes of death in twenty-nine cases of primary amputations. Some observations on the febrile types supervening.

BY close analysis, I have endeavoured to show the nature, frequency, and gravity of the diseased actions, local and general, supervening.

1st. On complicated fractures treated without amputation, and causing death.

2nd. On similar cases causing amputation during treatment.

With the advantage of some previous knowledge on these points, therefore, we proceed with the inquiry, as to the nature, the frequency, and the fatal effects of such actions, as supervening upon primary amputations, modify the progress, and determine the ultimate result of the case.

Many questions of the highest practical importance connected with amputation, its application to injuries and disease, and the results; hitherto involved in uncertainty, and surrounded by doubts and contradictions, I am firmly convinced, admit of satisfactory solution. Vague guesses at conclusions from inadequate data, have been much more frequent than attempts to solve any doubts by close reasoning, founded upon a large number of well-ascertained facts in comprehensive and complete series.

Before entering upon the consideration of the effects of the double shock of a violent injury to an extremity, quickly followed by the still sharper anguish and commotion to the whole nervous system of an amputation, it was absolutely necessary to determine what are the effects of such injuries when they do not lead to amputation!

It seems strange, and not very creditable to us as a profession, that of all the large and richly-endowed civil hospitals in the metropolis, and in every county in the kingdom, no one has sent forth such a statement of the cases admitted, or such a series of cases as to enable us to decide the important question, of how many patients sunk in the effort to save a limb! Dr. Laurie, of Glasgow, alone, has published a series of forty, while these lectures have been in progress.

If the surgeons of a few hospitals will follow the example, applying some system to the collection of the various interesting facts connected with the progress and results of disease and injuries, we may fairly hope to see the science of medicine based upon accurate and indisputable evidence. We shall then, too, see it less disfigured by vague theories and doctrines, open to contradiction whenever they can be tested by facts in large numbers, and as quickly supplanted by others equally worthless. We may truly say that medicine is, in the case spoken of by Horace Walpole, when he said,—It was of little use curing a man of one folly, since it only made room for another which quickly supplied its place. The constant production of large classes of facts, so arranged as to bear distinctly upon leading doctrines and principles of practice, cannot fail to have the most salutary effect—not only by destroying that which is erroneous, but by supplying better and safer material wherewith to build anew.

In the preceding lectures, the actions supervening on complicated injuries of the extremities either rendering amputation necessary, or destroying the patient by their full development, have been traced, under various circumstances, in reference to the nature of the injury, its site, and the external and collateral circumstances. I have thus endeavoured to establish certain grounds of comparison, by which we may determine what new elements of fatal disease, or what modifications owe their origin and character to

the second quickly-succeeding shock of amputation.

Without this groundwork, the result we are now seeking was, in truth, wholly inaccessible—it formed the necessary basis for our advance. If you turn to the tables and analysis of causes of amputation—and causes of death during treatment, where no operation was performed—and compare them with the causes of death in primary amputations, you will be enabled better to follow the analysis, and appreciate its bearing on the general question. Returns No. XVI. and XVII. give the result of fifty-seven cases of primary amputation, each series contained therein being complete. The mortality is 29, or 1.965; and I am confident many of our hospital surgeons would be startled, and hesitate to accept the responsibility of what to them would seem a mortality so unusual and disastrous. I did not, three years ago, hesitate to publish this result, taking the responsibility, even without giving the details and observations now produced, which it was impossible to analyse and classify, in the brief time I allowed myself to publish the work in question—a work intended, moreover, to give *general results* only, in reference to important points in surgery.

I did not hesitate, because I was conscious that neither neglect nor mala praxis had in any way contributed to this mortality; that although some difficulties and some adverse circumstances, often inseparable from the vicissitudes of military service, contributed on some occasions their deleterious influence: yet upon the whole, the results such as they were, favourable or otherwise, were the results of such natural causes—in relation to the original character and site of the injury, state of health, mind, and constitution of patient, together with the means and appliances for efficient treatment, as would frequently obtain in war; and therefore, that they would furnish a *true* average mortality for cases *under similar circumstances*. Anxious for the truth, it was indifferent what might be the complexion of the result; nor, until I had classed them, could I have ventured to say what those results would prove to be.

The mortality mentioned only rendered me the more anxious to investigate the causes, and determine their degrees of influence—not the less so, that Mr. Guthrie had published, as the result of collected returns of amputations during a period of the Peninsular war, a relative degree of success of primary and of secondary amputations, which was in contradiction to the facts I had studied in the hospitals under my own charge. It was not only that there was no sort of relation between the mortality in primary amputation in those returns and in mine; but while their success was so much greater in primary, it was much less in the secondary, as shown by the returns under my hands. These discrepant results were further brought forward, by my having detected many contradictions in practice, and its results, to the principles assumed by writers generally, at least by the most strenuous advocates of primary amputation, as satisfactorily accounting for this great disproportion between the success of amputation in the first instance, and at subsequent periods.

In my "Notes," published in 1838, I stated that, as the facts accumulated under my eye, I was insensibly led to the conclusion, that a train of symptoms were developed after primary amputations, dependent upon the reaction of the nervous system, highly and injuriously irritated by the double and quickly-succeeding shock of the original injury and subsequent amputation, falling upon a robust and plethoric subject, and thus producing a violent, irritative, and absorbent action; one which, after developing febrile symptoms bearing the same character of irritation, ultimately absorbs or exhausts the powers of life.

This peculiar action, with the train of symptoms—febrile, absorbent, and disorganising—is manifested sometimes locally, sometimes generally, more rarely both. In many, therefore, the action is developed in the stump; in others, the stump even heals, while the small irritative fever is destroying the life of the patient, without any trace of organic disease.

To the modes of development and other peculiarities of these causes of mortality, I will refer in the sequel: some more general remarks on their bearing must, however, have precedence. It has seemed to me certain that to this action, steadily overlooked or denied, by the stauncher advocates of primary amputation, may be attributed much of the discrepancy of opinion between them and another class who condemned the primary amputation in cases that admitted of any hope of their reaching a secondary, and, in their opinion, a much more favourable period for the operation. When we know that among the latter John Hunter took a prominent part, it might have seemed more prudent, instead of voting his opinion void of all foundation, to inquire if something, indeed, might not exist to justify it. If in the plethoric state of the system natural to robust health, and the excited state of the mind at the moment of receiving the injury (a severe shock, be it remembered), followed, with slight interval, by a second and violent commotion, powerfully affecting both the *physique* and the *morale* of the patient, there might not be an action developed not altogether so predisposing to recovery as imagined? To these deleterious forces brought into action, there requires to be added a loss of venous blood more or less considerable, tending also to destroy the equilibrium of the circulation, reacting upon the nervous system, and calculated in the revulsion that ensues to fall with grievous force on some previously-weakened internal organ, or upon

the nervous system of organic life arresting the vital functions.

Because a patient recovers from the first stunning shock of a severe injury, or because the immediate effects are not apparent in the first instance, surgeons have proceeded boldly to operate, conceiving there was nothing to fear from the effects of such shock, and even an additional one upon the system. This is precisely the error, hitherto very general, taken up in reference to the effects of *concussion of the brain*. I believe in some former lectures on the injuries of the head, and, subsequently, in an essay on the Effects of Concussion, to which the Royal College of Surgeons were pleased to award the Jacksonian prize of 1840, I proved distinctly that a concussion which shall ultimately develop the most fatal effects, may not even be followed at the moment by a loss of sensibility, or any visible effect of a highly-dangerous or fatal injury; and again, that when a man falls with instant loss of sensibility, he may, in a few minutes, or hours, recover from this—be apparently released from all the paralysing or destructive effects of concussion; and yet those effects shall be traced on through many stages for weeks, months, and, occasionally, for the remainder of a life-time. Thus it is with the shock communicated by a violent injury or a severe operation, or both combined; the diseased actions which ensue are the results, but, because masked for a time, their real *cause* has been overlooked.

To John Hunter, and others who advocated both in France and England the same opinions as he did, it was objected by the army surgeons, who followed with a phalanx of successful primary amputations, that such writers were theorists, who drew speculative conclusions, had never been on the field to judge the question—had never seen amputations on a large scale, and primary amputation fairly tested.

This might, and did for a time, suffice, summarily, to settle the question, and even to silence those with less ample experience but closer observation; yet it may reasonably be doubted whether this was a scientific mode of arriving at truth, the sole legitimate object of discussion or inquiry.

I am not afraid of being put down as a theoretical writer; I have seen several hundred amputations—performed a large number myself, and watched, with the greatest care, the whole progress of at least some five hundred severe and complicated injuries of the extremities in the hospitals under my own personal direction, and, of course, each and every amputation to which they gave rise. I speak without hesitation, therefore, though, I trust, with no overweening confidence or presumption, of what I have seen and studied in no very limited field for observation; and I am bound to declare my conviction of the truth of what John Hunter advanced, and Faure and Le Conte before him (however out of vogue, and talked down and almost out of sight and memory such opinions may be); viz., that the system is not in the best state to bear the shock of an operation within twenty-four hours after the receipt of a violent injury, such as a gunshot fracture; and that patients, in two cases out of three, are in a more favourable state at a succeeding period, if no organic disease shall have been developed, or the patient be not utterly exhausted.

Instead of those who advocate this opinion being open to the charge of being theoretical, I think it might lie more heavily on those who say, that because the man is in health, before disease has worked its ravages, *he must be in a better state* than at a later period. Is a man in *health* immediately after a violent commotion or shock, physical and moral? Is the system at that time in a condition favourable to any one healthy and regulated action? To set off by saying *that he is in health*, is begging the question. By so much nearer he is to the moment of receiving the injury, by so much more distant is he from the health he enjoyed. I maintain that when the shock has been sustained, it is difficult to imagine a state of body less favourable or further apart from *health*. A man who has survived this shock—the febrile reaction that succeeds—and retained a fair share of strength through the first week or two of the suppurative action, in my firm opinion is in a *better* state for operation, and one more favourable to recovery after it.

In the present state of opinion, I am aware this must seem to many a very startling assertion; and it will seem still more so if the conclusion should be drawn, that I am, therefore, an advocate for delayed amputation, when that operation is decided to be inevitable at the first moment. This is so far from necessarily following, that I feel a firmer faith in the propriety of primary amputation in the majority of circumstances, knowing that the observations from whence the two preceding statements have been drawn, also lead me to that conclusion; a conclusion which it is vain to deny has been sanctioned in reference to *military* practice, by the experience of twenty years' war, and on a scale so vast, as to leave little room to doubt its general correctness.

No question in surgery has been more frequently discussed, or more pertinaciously defended; perhaps few have given rise to such serious doubts among men of professional ability. Errors, I conceive, must have clung to both sides, or no doubt, at this late period, could have remained to be removed.

And it is curious to remark, in the destiny of opinions, as often in those of nations and individuals, how those which have been forced upon the world by hasty generalisation or erroneous principles, even though the results be good, after a period becomes less firm in men's minds—the constant subject of inquiry, dispute, and discussion—until that

which was erroneous is rejected, and the result, if essentially bad, overturned; or, if true, assured upon a sounder basis. Since the Peninsular war, little has been heard, until of very late years, upon the long-disputed question of the best periods for amputation after injuries, and the principles on which these were determined; but again, it has attracted the attention of the profession—M. Gendrin, of Paris; Messrs. Norris and Hayward, of America; M. Chelius, of Heidelberg; Dr. Laurie, of Glasgow; and others, have all been labouring to prove that immediately after the shock of an injury (meaning within twenty-four hours) is not, in reference to the state of the system, the most auspicious period for successful amputation. In 1838 I published such general results, as I thought tended to show there was room for further inquiry, and in these lectures I have proposed to furnish all the details which seem calculated to throw any light on the subject.

One great error on each side I trace, at least. The propriety of primary or secondary amputation, in reference to each other, has been made to hinge upon the question, of which is the most favourable period for the safe recovery of the patient. The advocates of primary amputation seemed to feel themselves, of necessity, bound to maintain that a man was in the best possible state soon after the receipt of the injury. The practical conclusion happened to be right, the premises were false; and the numbers even by which the rule was sought to be established, were equally unfair as tests; for many a secondary amputation is performed (as in the rupture of a large vessel) to arrest a death otherwise imminent, and thus offering a faint hope of ultimate recovery; also for tetanus, and under a variety of circumstances, rendering them unfair cases for *any operation;* and to these have been added, all those performed in the worst of all periods—not one, certainly, contemplated by the advocates of delayed amputation—which were no more *secondary* amputations, in the accepted sense of the word, than were the secondary, in reality, entitled to be termed primary. The mortality of the secondary, *therefore, has been greatly exaggerated—the dangers of the primary underrated.* Again, the results of primary compared with secondary amputations, and their proportionate mortality, varies greatly in civil and military hospitals. The same proportion no longer exists; nay, it is not seldom *reversed:* a fact, which seems to have been altogether overlooked or unknown. The advocates for secondary amputations have equally lost sight of all the lives lost with and without operation, in the intervening period, between the first and twentieth day.

I object to the erroneous grounds on which a principle of practice of such vast importance and wide application is based; because I think it calculated, in every new field for experience and inquiry, to unsettle opinions of surgeons, and lead to fresh doubt and discussion. For those who reason at all on the facts presented to their observation, the grounds on which primary amputation is sustained, will be continually contraverted in civil, and occasionally in military, practice; and finding the premises false, the next step is naturally to call in question the truth or value of the deduction. This was the course in my own mind—I ended, after long-continued and laborious investigation, by accepting the practical conclusion in favour of primary over delayed amputation, under many circumstances, but repudiating, as untenable, the generally-accepted grounds for such practice. If amputation must be performed, primary amputation, beyond question, I hold to be the best practice in the majority of instances—not because *the human system is at that period in the best state for meeting the consequences of the double shock, moral and physical*—not because these present such decidedly more favourable results than secondary amputations, under every condition of circumstances (when the latter are not compulsorily performed)—but because *many will be the forced amputations in an intermediate and still less favourable period; many more the deaths before the favourable period arrives;* and a large number even then remain who arrive at that period, *but offer no reasonable chance of surviving the shock of an operation, if superadded on the diseased and exhausting actions to which the original injury had given rise.* Add all these deaths to those from secondary amputation (properly so called), and he must be a bigot indeed to the adverse opinion, who can have one moment's hesitation as to which side of the question the amount of human suffering and the loss of human life preponderates. Still this question has never been fairly and impartially dealt with; and for this reason I have framed the tables accompanying these lectures, which, with other statistical details, explanations, and cases, form a body of evidence, placing the subject in all its bearings (for the first time, it appears to me), clearly and palpably before the profession, with the just grounds for the conclusions already jumped to, upon false premises, by the majority of surgeons.

I trust this labour may not be useless, as confirming, in many instances, and better defining in all, most important rules of practice, taking away not only causes of doubt as to their correctness, but furnishing true instead of erroneous grounds. Such a labour must tend, moreover, to remove plausible points of attack from those who may be disposed to advocate contrary and more disastrous practice.

Prior to giving an analysis of the causes of death in fifty-seven primary amputations, I will offer a few more general observations on the classification of diseased actions. The classes taken as representing the predo-

minant action, and most obvious cause of death, I shall adopt as so many heads, under which I may clearly arrange the remarks I have to offer *on the supervening actions causing death after primary amputation.*

Fevers.

The classification of the febrile actions offers the greatest difficulty. Almost invariably after amputation there is constitutional disturbance, and generally more or less of a febrile character; yet to resolve the symptoms into a special type of fever, where there is little beyond the existence of febrile action to seize—or a mixed and complicated set of symptoms to guide us—is not only a difficult task, but one very liable to error. I wish this classification, therefore, to be taken as rather an approximation to what seemed the most predominating symptoms and types, than a fully-ascertained truth. To have classed all the various complications of organic disease, found in connection with *fever*, under that generic term, might have been safer; but for many reasons, which will soon be obvious, and more particularly that one type seemed to predominate over another, it was desirable to attempt somewhat more closely to define the febrile action.

The three forms I have adopted are the bilio-remittent, the hectic, and irritative; the latter more epecially indicating a small kind of fever, assuming no very broadly-marked characters, although evidently wearing away the powers of life, and exhausting the patient.

Fever is occasionally, if not wanting, at all events so little obvious, and local or other diseased actions so evident, that it altogether escapes remark or observation; even in phlebitis, one case is recorded in the analysis, where the attention was chiefly directed to the bad actions of the stump.

Whether remittent, hectic, or irritative, be the types, we see each are complicated by secondary abscesses of viscera, or distant parts, each occasionally with phlebitis. A particular form of fever has been ascribed by some writers to each of these effects; an example which I shall hereafter produce, of one case out of each of the three classes, will prove that such assumption is not correct.

Whoever refers to the various treatises on fevers, will perceive that in the mass of opinions so various and contradictory, it is most difficult to establish therefrom any one series of symptoms as *distinctive* of peculiar types, but more especially of remittent and yellow fevers. The yellow fever is, in truth, a bilious remitting fever. The most fatal and malignant forms of remittent are developed and modified, in great degree, if not generated by endemic and epidemic influences, to which some constitutions and states of the system are so peculiarly obnoxious, that the attack is generally fatal in its results; while to others it seems innocuous. My attention, as I have stated, was anxiously devoted to this subject from the circumstance, that of a great mortality in the amputations performed during the month of March, many were carried off by a form of fever I have termed bilio-remittent, and which, with equal propriety, perhaps, might have been called the yellow fever.

In the Spanish hospitals, crowded by the wounded from the same series of actions fought in that month, I believe the only case saved out of a large number of amputations was one of the arm, performed by myself. This patient I removed subsequently into one of the British hospitals, where a large and airy ward was preserved especially for operations.

To the consideration of these cases, and the influences under which they took their fatal course, I have already devoted two lectures. In the next, I shall proceed to lay before you some views upon the nature of this bilio-remittent form of fever supervening on operations, and frequently attended by suppurative disease in some important organ, or distant part, and the chief agents in the production of this type and its complications.

A CASE OF

ACUTE HYDROCEPHALUS,

EXPOSED TO GREAT DANGER FROM DELAY IN THE TREATMENT, IN CONSEQUENCE OF BEING MISUNDERSTOOD IN THE FIRST INSTANCE.

By Professor Davis.

Miss F——, five years of age, a delicate little girl, sustained an accident at school, by falling from the back of her chair. In consequence of this accident she complained loudly of acute pain of the occipital region of the head, the part which came in contact with the floor behind. Being of a cheerful disposition, she presently ceased to cry, and admitted of being soon comforted by her schoolfellows. When, however, she went home at noon, she forgot not to mention her accident to her mother, nor the severity of the pain she suffered at the time, and in consequence of it. She, nevertheless, eat her dinner as usual, and was cheerful and chatty during the whole of the remainder of the day. She went to school again the next day, without experiencing any observable indisposition, and without making any complaint. When, however, on this, the second day after the accident, she came home at noon, she complained of being poorly, and refused to take her dinner. She was harassed with sickness and vomiting during the whole of the remainder of the day, and rather frequently during the following or third day after the accident. On the third day, which

happened to be Thursday, the medical friend of the family was sent for, for the first time; but that gentleman not being at home, nor in London, another gentleman attended in his stead, who had been appointed to see his patients in his absence.

It unfortunately happened that this gentleman had had much less experience in his profession than his friend; and that he treated the case as one simply of gastric irritation, although he acknowledged that it was accompanied by symptoms of slight fever. Medicines to relieve the case as thus reported, were accordingly sent and duly administered by the family, but certainly without producing any obvious relief of the symptoms. This practitioner saw the patient from day to day; daily reported the case as an improving one; and, on the succeeding Sunday, took his leave as from a case which, in his conviction, was doing well, and, therefore, not requiring any further attendance from him. The little patient, however, thought otherwise, as also did her mother, and other members of the family. On the following day, Monday, the mother feeling convinced not only that her child was not improving, but that the malady was becoming more and more aggravated, sent for my friend and neighbour, Mr. Langley, of Tottenham-street. That gentleman, who had frequently seen cases of acute hydrocephalus in consultation with myself, instantly recognised and reported the case now described, as one unquestionably of water in the head.

At this time the disorder was rapidly advancing, and the heat of the head had become so developed as to place the nature of the malady beyond a doubt. He, therefore, suggested that it might be proper to take my opinion upon the subject, as he wished for my assistance in its further practical management; adding, that it had already arrived at a period of its progress of considerable danger, if not of doubtful result. It unfortunately happened on the day in question that my attendance could not be obtained until a late hour in the evening. When I saw the patient for the first time, symptoms of acute hydrocephalus were unequivocally established. The gastric symptoms already referred to, had probably been those of sympathy with the head; inasmuch as when I first saw the patient there was no pain, upon pressure, of any part of the abdomen, nor of any viscus within its cavity. Added to this fact, there were obvious symptoms of congestion of the head, attended by an increase of its heat, and an intense aching, affecting especially the forehead. The expression of the countenance was that of great distress, which was attended with obstinate gravity. The eye looked languid and sickly; the tongue was white and smooth, but not particularly furred, nor yellow. The patient had been purged by alvine aperients; but no emetic had as yet been administered, although the stomach had been repeatedly emptied by spontaneous vomiting. Upon the whole, I should say that the little patient had become the subject of an ardent pyrexia, and was considerably advanced in the first, or formative, stage of hydrocephalic congestion.

Such was briefly the state of the case when I first saw it, and was requested to prescribe for it. Upon this occasion my friend, Mr. Langley, having become himself engaged in the course of the day, failed to give me the meeting. The other gentleman had not seen the patient since he had taken his leave on the previous day. I considered that there was no time to be lost, and accordingly I ordered cupping from behind the ears to be had recourse to without delay. Before the operation was completed Mr. Langley arrived, and he stated to me next morning that our little patient had borne the abstraction of eleven ounces of blood before she fainted. On recovery from the fainting she had my usual dose of an emetic administered to her, and on the subsequent morning an active purgative, consisting of calomel and jalap. In addition to this treatment, directions were given to the family to procure one of Mackintosh's cold-water cushions, which, in the course of the day, was placed under the occiput, to the no small relief and gratification of the patient. Spirituous lotions were in the mean time, and in the usual way, applied to the superior and anterior parts of the head.

Evening visit of Tuesday. The medicine, both of last night and this morning, have operated well. Our patient, however, is still inflexibly grave, although the active treatment adopted, both last night and to-day, have had the effect of considerably reducing the pyrexial symptoms. I was requested to pay a second visit in the evening, in order that the family might then, peradventure, obtain my opinion as to the probable result of the case. The usual train of fatal symptoms not having yet manifested themselves, I felt it my duty to give a cautious but encouraging opinion. The abstraction of blood, although it must have diminished the congestion, had not removed all the pain of the head. There was yet, strongly marked, the peculiar expression of countenance of a severe case of acute hydrocephalus.

There was already a good basis laid for further useful and efficient treatment. But the treatment in question had become necessary, as the formidable malady we had to contend with, although unquestionably greatly mitigated, was not adequately subdued. Had the cephalic congestion been sufficiently relieved in the first instance by ample bleeding, the treatment now to be mentioned might, probably, not have been required. Under existing circumstances, however, it could not be safely omitted. Accordingly, our next

object was to excite a gentle salivation, as soon as that effect could be obtained. It is well known to the profession, that it is not always easy in the cases of young children to produce salivation as speedily as could be wished, by safe and moderate doses of calomel. The quantities prescribed upon this occasion were six doses daily, consisting of three grains each of calomel, with an equal quantity of compound powder of tragacanth, and with a very minute addition to each of powdered opium, to check its action upon the bowels. An active purgative, I believe powdered jalap, was added to the first dose or two of the calomel, in order to obtain sufficient freedom of the bowels at the commencement of the treatment. The cold Mackintosh cushion was continued, it became a great favourite, and was replenished from time to time with fresh and colder water, which was frequently ordered to be renewed by the patient herself. There was no remission as to the use of the spirituous lotions to the forehead and temples. I have thus transmitted to the pages of THE LANCET a case of acute hydrocephalus of great danger, from want of due recognition of the disease and of active practice in the beginning. If the little patient's malady had been duly recognised as one of probable danger of the accession of hydrocephalus on the first day of the patient's indisposition, i.e., on the Thursday, or next day but one after her accident, and she had been then bled, *ad deliquium*, and otherwise treated by an emetic and a purgative of calomel and jalap, agreeably to the method of treatment recommended in my recently-published tract on Acute Hydrocephalus, there is no good reason to suppose that the case might not at once have yielded to the practice in question. Instead, however, of an early recognition of the essential symptoms of hydrocephalus, they were totally neglected during the entire of Thursday, and the days consecutively of Friday, Saturday, Sunday, and a part of Monday, when towards the middle of that day they were recognised by my friend, Mr. Langley. This is an unvarnished statement of facts. It is not my object to injure the individual whom this statement would inculpate, and therefore I purposely withhold his name; but for the benefit of the profession and of society, I publish the fact as a beacon to young practitioners, to warn them against too much confidence in their own ability, to decide definitively at once, and, as it were, *extempore*, upon the diagnosis of certain insidious and dangerous diseases. How much better managed was a case of gastric irritation, which occurred about the same time, in the practice of my friend, Mr. Bartlet, of Kensington Gore? The case was seen by me only once. The question with Mr. Bartlet was, how far it was exclusively a case of gastric irritation, or one of gastric irritation with the superaddition of a state of congestion of the vessels of the head. I decided on the former view of the case, although I have to acknowledge that I came to that opinion with some difficulty. The case yielded to the action of an emetic, and the free use of purgatives.

It was once the practice to attribute many fatal cases of acute hydrocephalus to the supposed influence of worms in the intestines; and hydrocephalic affections were then not unfrequently called worm-fevers. It was subsequently the practice of another school, of which the founder was the late Mr. Abernethy, to attribute cephalic affections of no little importance to disorders of the gastric functions, without immediate reference to the presence of worms in the bowels. Both those views of pathology had the effect of misleading the profession to an erroneous assumption of the nature of the disease under consideration, and necessarily, therefore, of the proper practice to be adopted for its cure. The universality of the worm-fever theory has pretty nearly ceased to exist; whilst the gastric theory of Mr. Abernethy, as a falsely-assumed cause of hydrocephalus, is likewise waning apace into practical desuetude. Mr. Abernethy had, unquestionably, the merit of extending the limits of surgery, by giving it the benefit of a more intimate dependence upon a correct knowledge of medicine; although that gentleman, notwithstanding his sarcasms in reference to others, was, in many respects, far from being himself a consummate physician.

It is extremely important, if possible, to avoid the necessity of having recourse to the mercurial treatment, found indispensable to the cure of the case just reported; in as much as the early and adequate vascular depletion, which I have thought it my duty strongly and repeatedly to urge, is usually competent to effect a subduction of the malady, is incomparably the most certain of all means which can be made available for the attainment of the results to be hoped for; and is rarely, if ever, objectionable, on the ground of any permanent damage to be incurred from its use by the constitution.

17, Russell-place, Fitzroy-square,
May 10, 1841.

CASES OF

LARYNGISMUS STRIDULUS
(THYMIC ASTHMA, &c.).

To the Editor of THE LANCET.

SIR:—I had written the accompanying remarks some weeks since, but delayed sending them until the present time, when the notice taken of thymic asthma, in a late Number of THE LANCET, led me to infer they would not prove unacceptable; should they meet your approbation, their insertion

in that Journal will oblige your obedient servant,

George A. Rees.

5, Artillery-place, City-road,
April 20, 1841.

Maria Stone, aged nine months, was placed under my care, together with her brother, in the month of February, for what her mother supposed to be hooping-cough.

Feb. 24. The symptoms are those of catarrh, with violent sneezing, running at the nose and eyes, characteristic of the epidemic influenza; together with this, both children are suffering from a troublesome cough, suffocative in both, and accompanied in both with slight whoop; more distinct in the infant, but not decided in the elder child.

The infant appears feverish; there is some heat of skin, the tongue is coated, the urine high-coloured, the bowels confined, the evacuations deficient in bile; there is no appearance on the gums of teeth near at hand. On examination there is observed over the lungs *ronchus sibilans*, but not extensively diffused. The disturbance, inevitable in making these observations, causing the patient to cry: each deep inspiration is accompanied by a crowing sound, the result of temporary constriction of the glottis inducing embarrassed respiration; which is further evidenced by turgidity and redness of the face. The sound, though unaccompanied with cough, similates nearly the whoop of pertussis; it is observable only in deep inspiration; the ordinary respiration is unmarked by any unnatural sound.

History.—This infant has been under my care before; first, in the month of July last, for "a catching in the breath" (the mother's description), threatening to choke it; this supervening quite suddenly, the infant in other points appearing lively, cheerful, and in good health. This catching came on especially when the infant was awaking from sleep, and obliged the mother to take her up immediately, lest suffocation should succeed; or, when she was irritated, the catchings were sometimes so severe, that the face was rendered livid, the eyes protruded, the body became rigid, and strangulation appeared imminent. These catchings were, in fact, the spasmodic closure of the glottis, noticed above; and took place whenever the inspiration was unusually deep. The bowels were at this period much deranged, and some alterative and aperient medicine so far relieved the symptoms, that the mother considered it unnecessary to continue the medical treatment. The paroxysms of dyspnœa, or catchings, did not, however, entirely disappear; but from that time to the present, have always, to a greater or less degree, been excited, when the infant has been irritated or exposed to cold air: for which reason it was recommended to be kept upstairs during the winter, and only to be taken out when the weather was decidedly mild.

In December I was again called to see the infant, who had been seized with a strong convulsion: when I arrived it had recovered, and seemed cheerful and in good health, lively and intelligent. The fit had been caused by the spasmodic constriction of the glottis, which, being greater in degree than ordinary, had interrupted, entirely, inspiration for the moment, and convulsion succeeded. The bowels at this time, as before, were constipated, and the infant had been brought down stairs into a cold, damp kitchen. The same remedies and the same precautionary measures again afforded relief; and as the dyspnœa seemed always excited by the attempt at deep inspiration, a bandage was recommended to be firmly applied round the thorax, which might somewhat moderate the inspiratory efforts. This seemed to be of benefit, the attacks of dyspnœa being certainly less considerable, until the present attack of catarrh.

It is not necessary to detail the treatment adopted for this, it will be sufficient to mention that it afforded temporary relief (the brother was cured in a week, proving it was not pertussis). On the 5th March the report was, "the medicines have operated well, and given some relief; the cough is less violent, and the infant appears better." On the 7th of March, while the infant was sitting up playing and laughing, the spasmodic closure of the glottis recurred, the efforts at inspiration were unavailing, the face became livid, the trunk rigid, the limbs convulsed, and in two minutes life was extinct.

Post-mortem Examination.—Body plump, skin healthy, no appearance of enlarged cervical glands externally; the posterior part of trunk and extremities much discoloured from transudation. On opening the thorax the most prominent object is a much enlarged thymus gland, extending downwards in the anterior mediastinum, between the lungs and upon the pericardium, for a considerable distance, in the form of a tongue-shaped lobe, and prolonged upwards in the neck in the form of two nipple-shaped processes, having between them the trachea, on each side of which they dip so as to approximate, if not touch, the recurrent nerves: this gland, when removed, measured four inches three lines in length, and two inches five lines in breadth, and weighed seven drachms thirty grains.

The heart is healthy, but engorged, especially as to its right cavities; the lungs are healthy, as also the abdominal viscera. There are no enlarged cervical or bronchial glands. The hemispheral veins of the brain are much injected (which, as well as the engorgement of the heart, appears attributable to the suffocation); in all other respects that organ is perfectly healthy.

This case offers a good example of one form of laryngismus stridulus; an affection which, though so common in early life, so easily recognisable, and so frequently fatal, though so ably and accurately described by various authors, and not seldom detected by the parents themselves, is, nevertheless, overlooked in actual practice oftener than any disease occurring during childhood. The majority of sudden deaths in infants under eighteen months old, whether attributed to convulsions, to being overlaid at night, to being wrapped up too closely in the mother's cloak, or by non-medical coroners to being choked while taking food, are, I believe, instances of laryngismus stridulus, either from enlarged thymus, as in this case, or other causes presently to be mentioned; and if the parents of such infants are asked whether any catching, strangling, or whooping in the breath, were observed before the fatal attack, the answer will generally be in the affirmative. I have at the present time an infant under my care with well-marked laryngismus stridulus, the sole surviving one of five, the rest having died before one year old of convulsions, evidently the consequence of laryngismus stridulus; and yet the question was never put to the mother, whether any such symptoms had been observed.

One reason of the want of information respecting it, may be traced to the many different names by which the affection has been described; amongst these are, "acute asthma of infants," "dyspnœa spasmodica," "spasmodic croup," "child-crowing," "thymic asthma," "peculiar convulsion," and the one suggested by Dr. Good, selected by Dr. Hugh Ley, and preferred here, as denoting the symptom without defining the cause, laryngismus stridulus.

As various as the epithets used to designate it have been the opinions entertained with regard to the nature of the disease. Dr. Clark considers it dependent upon a morbid condition of the brain; Dr. H. Ley, in his elegant essay, attributes it to enlargement of the deep cervical and bronchial glands; while Dr. Kopp and other German writers refer to hypertrophy of the thymus, as explaining the origin of the symptoms: nor have there been wanting some who imagined derangement of the digestive organs sufficient to induce the disease.

In endeavouring to reconcile the various statements, and to form a correct judgment, where so much difference of opinion prevails, it must be borne in mind that the paroxysm of dyspnœa is to be regarded as a symptom; the spasmodic closure of the glottis is probably the result of undue excitation of the recurrent nerve, as supposed by Dr. H. Ley; but the exciting causes may be very various—an hypertrophied thymus, or enlarged bronchial gland, may equally, directly or indirectly, by pressure, embarrass the recurrent nerve:* nor is it difficult to imagine the same nerve, rendered morbidly irritable from disease situated in the brain, if such implicate, as I believe it will be found to do, the origin of the par vagum; and experience shows that in all cases, whatever the origin of the disease, derangement of the digestive organs aggravates, in a remarkable manner, the attacks of dyspnœa, both as to frequency and intensity.

Laryngismus stridulus occurs in practice under different circumstances; it may be uncomplicated with other detectible disorder—it may be associated with cerebral disease, or it may be present with a morbid condition of the respiratory organs.

The affection uncomplicated may be met with in the very young subject; in the case given above it was observed two months after birth, and proved fatal before dentition commenced. I have known it terminate fatally at a much earlier date; but more commonly it destroys the infant at the period of dentition. I believe, in these cases, hypertrophy of the thymus gland will almost always be found the cause of the mischief; I have opened as many as six or eight young infants dying suddenly of laryngismus stridulus, and have always found the thymus much enlarged, weighing five, six, or seven drachms. Can the presence of this enlargement be decided by any examination during life, I think not; unless in those less common cases, where a process of the thymus is prolonged up to the thyroid gland. In one case of laryngismus stridulus, I thought that I detected this, but was unable to obtain a post-mortem examination. One remarkable point in these cases is, the dependence of the paroxysms of dyspnœa upon the state of the digestive organs; whenever they are out of order, the intensity of the attacks is increased, which it seems difficult to account for, since the affection so evidently depends upon a mechanical cause. The same difficulty presents itself, in accounting for the constant and immediate good effect obtained in such cases from change of air. Can it be that this body during fœtal life performs some part analogous to that effected by the lacteals and thoracic duct in after-life, by supplying a pabulum to the blood; and that when it remains unabsorbed after birth, its greater or less degree of congestion depends upon the way in which the latter carry on their vicarious functions?

Where the affection *comes on* uncomplicated in the older infant, though there may

* The opinion entertained by a correspondent of THE LANCET, that the pressure on the trachea caused the embarrassment in breathing, must, I believe, be incorrect; the dense structure of the air-tube, and the soft consistence of the thymus, equally forbid such a conclusion.

be no symptoms of disease, marks of a strumous diathesis will be present in the fair, waxen complexion, the enlarged joints, and the rounded form of the cranium, from the slow and imperfect ossification of the cranial bones. In many of these cases, examination after death will bring to view enlarged agglomerated glands in the vicinity of the recurrent nerves, explanatory of the spasmodic attacks. The presence of such may often be suspected during life, from the enlarged superficial glandulæ concatenatæ in the neck. I believe no difference is perceptible in the attacks of dyspnœa in these infants, and those where the thymic enlargement causes them.

The cases of laryngismus stridulus, combined with cerebral disease, are seldom met with until dentition has commenced. The cutting of the incisor teeth seems often to be the exciting cause of the affection, which is exasperated at the period of cutting each succeeding tooth, especially the first molar; if the patient survive the appearance of these, the case generally terminating well: I have never known a case terminate fatally after two years. In these patients the structure and appearance often indicate a predisposition to cerebral disease in the large head; the open, and perhaps tumid fontanelles, and the unduly turgid frontal veins; or, if such be absent, extreme violence of temper, startlings, startings in sleep, grinding of the teeth, &c., give evidence of the cerebral irritation present.

Here, again, the attacks of dyspnœa are very similar to those of uncomplicated laryngismus stridulus; but, in the interval, no similarity obtains between the two classes of cases; in the one, the infant, after the respiration becomes easy, presents no trace of disease, and to a casual observer would seem perfectly well. In the other, the case now under consideration, the patient remains dull, heavy, listless, and drowsy; the pupil of the eye dilated; the head hot, frequently being held extended on the spine; and, unless remedied, the case is always liable to pass into inflammation of the brain.

Moreover, where laryngismus stridulus is combined with cerebral disorder, there is in some patients a distortion of the hands and feet; singular in appearance, and very characteristic of the disorder. The fingers are extended upon themselves, but semiflexed upon the metacarpus, and this at times upon the carpus; and in the same manner the toes upon the metatarsus. These carpopedal contractions I have never met with in children, unless they are, or have been, labouring under child-crowing, though they may be continued when the child has outgrown that affection, or may be met with in the adult. Whenever I have seen them, there has been at the same time great derangement of the digestive organs, especially of the mucous surface of the stomach and intestines. Where these contractions* have proved obstinate, and continued for some time, the joints of the fingers may become red, painful, and extremely tender to the touch, similating, nearly, the appearance of acute rheumatism; but commonly these contractions disappear on the administration of a calomel purge; or on the division of the tumid gum over the projecting teeth, to recur when the exciting cause is again present.

In these cases, no doubt exists in my own mind, that the affection depends upon a morbid condition of the brain. In fatal cases, where the laryngismus stridulus has been most distinct, I have looked in vain for the enlarged thymus, or other gland, in the vicinity of the trachea, and have only found marks of disease in the brain, most frequently thickening of the arachnoid, with effusion at the base of this organ; and to this diseased state, implicating the origin of the eighth pair, seemed attributable the abnormal irritability of the nerve presiding over the movements of the glottis.

That laryngismus stridulus is generally present, where an atrophied condition of the lungs is followed by deformity of the chest, I have mentioned in a former communication; and that the dyspnœa seems incurred by a momentary loss of equilibrium between the inspiratory effort and the capacity of the lungs to receive air; I proceed, therefore, to offer a very few remarks upon the treatment of laryngismus stridulus, which must conclude this, I fear, already too prolix paper.

Treatment.—In the uncomplicated cases, where the obstruction is evidently of a mechanical kind, the first question is, whether any means of a mechanical kind can be devised to remove or obviate the effect of the obstructing body; and to this end, I believe, the application of a well-adjusted bandage firmly round the thorax, will, in a great measure, prove successful. The dyspnœa is always excited by the attempt to take a deep inspiration, whether at the moment of awaking from sleep, in the interval of crying, or on the emotion of surprise or joy. It was this fact which suggested the application of a bandage, as likely to con-

* These contractions I have met with in four adults, two in the same family, irritable females, one of whom had decidedly had laryngismus stridulus when a child, and several fits in consequence; the third case where they were present was a female, suffering from spinal irritation, brought on by a course of mercury, injudiciously administered for pleurodynia, supposed to be a symptom of liver complaint; the fourth case was a man with cancer of the pylorus.

trol the inspiratory effort; and I have never known it fail to give temporary relief: in some instances it has saved life. I am aware it may be said such compression of the chest is likely to prove injurious to the infant's growth; and, certainly, it should be discontinued as soon as the cause for its application disappears; but where the attacks of dyspnœa are threatening daily and hourly to cut off the patient, immediate benefit must be sought at the risk of remote ill consequences.

The other points in the treatment may be summarily recounted—change of air, warm clothing, nutritious diet, great attention to the state of the digestive organs, guarding especially against constipation, are the chief; and to these may be added, local applications, counter-irritants, iodine ointment, &c. to the base of the neck, though the curative effects of such will prove inconsiderable. In the instances of laryngismus stridulus, complicated with cerebral disorder, the treatment must so entirely be regulated by the circumstances of each individual case, that it is impossible in a paper like the present to give it even in outline; but one precaution the writer will venture to suggest to those who have such cases under treatment, avoid the "nimia medici diligentia." Where symptoms of congestion or inflammation are present, cautious depletion and the use of mercury may prove useful; but the cerebral irritation may be most intense, the carpo-pedal contractions at times present, the laryngismus stridulus most distinct, and yet the case be benefitted by a soothing or even strengthening treatment; and the symptoms, on the other hand, be exasperated to a tenfold degree, by antiphlogistic measures.

THYMIC ASTHMA.

To the Editor of THE LANCET.

SIR:—In answer to your appeal to medical men respecting the disease called by the Germans thymic asthma, I beg to say that I have treated successfully two cases of it. The whole of the children in Mr. Underwood's family, in which these cases occurred, have soon after birth manifested the asthmic constitution; have become ill from time to time from slight causes; two of them have had distortions of the spine and extremities, and five out of nine have died of diseases incident to such a state of body; such as subacute disease of the brain, lungs, intestinal canal, &c., in which it was found impossible to have recourse to active depletory remedies without doing injury. The cases of thymic asthma were characterised by spasmodic attacks of the muscles of the upper part of the thorax, neck, and face, occasioning severe stricture of these parts, and occurring frequently at night—induced at all times by anything that disturbed the tranquillity of the little patient's mind, and particularly during a fit of crying. During these paroxysms the muscles became stiffened, the features violently distorted, the face black, respiration suspended, and the patient very much exhausted. When the spasms gave way there was a peculiar croaking sound of the voice, which was not present after the fit had subsided, and very different to the sound produced by croup: in the intervals, the patient became lively, could eat and drink without much difficulty, and was free from acute disease of the lungs and bronchial tubes; having at most a slight cough, without much dyspnœa, and only mild febrile symptoms. During the paroxysms, change of position always gave relief. The mode of treatment adopted in these cases was as follows:—One-eighth of a grain of tartarised antimony with half a grain of submuriate of mercury, was taken every four hours, afterwards every six and eight hours, then twice a-day; in the intervals, a saline mixture with hyoscyamus or poppy was given; and lastly, small doses of mercury with chalk once or twice a-day, and a mixture with sulphuric acid and syrup; to which may be added, a mild nourishing diet.

The elder of these patients has up to the present time (now more than two years since the attack) a peculiar sound of the voice whenever she cries or is pettish; the other patient is alive. I am, Sir, yours respectfully,

JAMES PROWSE.

St. James's, Barton, Bristol,
May 14, 1841.

ON THE

APPLICATION OF LEECHES TO THE PROSTATE GLAND.

By WILLIAM CRAIG, Esq., Surgeon, Ayr.

To the Editor of THE LANCET.

SIR:—I am glad to have it in my power to corroborate the statement made by Dr. Henderson, of Perth, in THE LANCET for January 30th, of the good effects of leeches applied to the prostate gland through the rectum. I may state, however, that this kind of treatment is not perfectly new; and Dr. Henderson is not the first who recommends it, although from his method of applying leeches in this situation, it is evident that he deserves the credit of originality, in so far as he seems to have had no assistance from the mode described by M. Bégin, who gives, in the "Dictionnaire de Medecine et Chirurgie Pratique," an account of a method of applying leeches to the prostate through the rectum. I applied leeches in

this situation fourteen or fifteen months anterior to the time mentioned by Dr. H.; and this mode of treatment seems to have been common among the French, as M. Bégin mentions it, without making allusion to the period when it was first commenced, or the individual by whom it was first proposed.

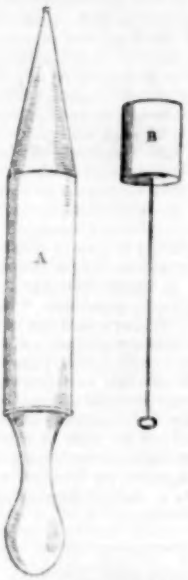
The following extract is from the paper of M. Bégin, and contains his description of the method of applying leeches to the prostate:*—

La prostatite aiguë réclame l'emploi d'un traitement antiphlogistique très actif. Au debut une ou plusieurs saignées générales seront pratiqués avec avantage. On aura recours ensuite aux applications de sangsues sur la partie la plus reculée du périnée, ou même sur la face rectale de la prostate. Pour les placer sur ce dernier point, il convient d'introduire dans l'anus un spéculum, d'un pouce à un pouce et demi de diamètre, obturé à son extrémité libre, et offrant dans toute sa longueur, une échancrure large de huit à dix lignes, fermée par une plaque à coulisse. Lorsque l'instrument est entrée dans l'intestin, son echancrure correspondant à la prostate, on retire la plaque, et les sangsues peuvent être facilement portées sur la portion de la membrane muqueuse quélle a laissé à découvert. Après la chute des annélides, le doigt porté dans le spéculum refoule aisément les tissus qui tendent à s'y engager par son échancrure et l'instrument est retiré sans le moindre effort. Ces saignées capillaires immèdiates ont été souvent employées et toujours avec avantage.

In April, 1839, I was consulted by a gentleman, about 70 years old, who had, in an aggravated form, all the usual symptoms of diseased prostate. There was very great effusion of blood into the bladder, the tumour was very large, and he had complete retention of urine during fourteen days, which rendered indispensable the daily use of the catheter.

He was treated by cupping, and leeching in the perinæum, and subjected to the usual routine of medicinal remedies, but quite unavailingly. Having failed to relieve the patient by these means, I had recourse to leeching the gland through the rectum.

With a view to the accomplishment of this object, the means of applying the leeches were different from those adopted in the case of Dr. Henderson, or those described by M. Bégin. I procured a tube, as is represented in the accompanying draught, about two and a half inches in length, and three quarters of an inch in diameter. Through this tube as in fig. A, in the same manner as the trocar is passed through the canula, is fitted a piece of boxwood, in such a way as to allow two inches to project beyond each end of the tube, one end being made into a handle, and the other being made to terminate conically in a blunt point. The tapering form of the pointing end is gradually to dilate the anus, by which injury and uneasiness to the patient may be avoided. The little box, fig. B, is of a proper size to fit the tube, and capable of containing three or four leeches: from the bottom of the box a wire projects to form a handle, by which it may be pushed through the tube when the wooden dilator is withdrawn.



When using this contrivance, it was necessary to lubricate the wood and the tube with oil, by which dilatation was produced without the slightest uneasiness, and might have been carried to nearly double the extent with equal facility. To avoid coming in contact, and thereby injuring the tender prostate, it was necessary to direct the pointing end towards the sacrum. When one half of the tube had passed through the anus, the wood was withdrawn, and the end of the tube which was in the rectum directed towards the prostate, and gently made to rest on it: the small box B was then filled with leeches, and pushed close up to the swelling, and left there till the leeches, by their increased size, pushed it down.

This operation was but once had recourse to in the case of this patient, as he immediately became more easy, the swelling had greatly subsided, the retention had ceased, and all the other symptoms were sensibly

* Article, Prostatite, Dictionnaire de Medecine et Chirurgie Pratique.—*Paris*, 1835.

relieved; and shortly after he became perfectly well, and has since continued so.

In almost all cases of diseased prostate where leeches are indicated, this method of applying them may be resorted to, and preferred before any other, as it is accomplished with the greatest facility to the operator, and with ease to the patient. There can be little doubt of the efficacy of this practice, as M. Bégin says that it is always attended with benefit, and it was eminently useful in the case of Dr. Henderson, of Perth, and in that related above.

In contrasting the three methods of applying leeches to the prostate, the French one appears to be most objectionable, as it cannot be done without causing considerable pain to the patient; 1st, by the pressure of the blunt end of the speculum through the undilated anus; 2nd, when withdrawing the speculum, by the friction and pressing of the edges of the slit on the tender tissues, and the traction of the projecting part which exists at the end of the slit, where the whole circumference of the speculum becomes perfect.

Ayr, April 3, 1841.

CASE OF ABSCESS OF THE PROSTATE GLAND.

By Gideon Algernon Mantell, Esq., LL.D., F.R.S.

A gentleman, aged 70, of a florid complexion and sanguine temperament, and of extremely regular habits, and who had occasionally been subject to cystic irritation from a slight enlargement of the prostate, fell down a flight of stone steps, injured the right knee, and received a slight concussion of the brain. On being brought home and put to bed he experienced a severe shivering, to relieve which a tin vessel of hot water was placed between his thighs, and almost instantly he felt a severe darting pain through the neck of the bladder. This was followed by a frequent and distressing desire to micturate, which ended in complete retention of urine. The following day (Jan. 11) a catheter was introduced with some difficulty and great suffering, and about a pint of urine was withdrawn. The operation was repeated in the evening. For five successive days the catheter was employed night and morning, but the difficulty of passing it increased, partly from the extreme irritability of the urethra, and partly from a progressive enlargement of the left lobe of the prostate, which so altered the normal course of the urinary canal, as to cause the instrument, in its passage to the bladder, to describe a considerable curve to the dextral side.

An eminent surgeon, who attended this case in consultation with me, advised an elastic catheter to be retained, but the suffering it induced was so great as to compel its removal after a few hours. An attempt to introduce a silver catheter in the usual manner failed, and occasioned the discharge of a considerable quantity of blood. In this dilemma five grains of acetate of morphia were mixed with half an ounce of spermaceti ointment, and the urethra was lubricated therewith by means of a bougie. The catheter was again had recourse to, and care being taken to pass it so as to describe a curve towards the right, which the enlargement of the left lobe of the prostate rendered necessary, I succeeded in emptying the bladder with more facility, and with far less pain to the patient than on any previous occasion. This method was continued night and morning till Feb. 2, three weeks after the accident, when, upon introducing the instrument, I experienced some difficulty; and after the contents of the bladder were discharged, upon withdrawing the catheter, three or four ounces of pus flowed from the urethra. Two days afterwards the bladder recovered its powers, the obstruction was removed, and the patient has experienced no subsequent inconvenience.

The means employed to allay the irritability of the urethra in this case, simple as they were, merit the attention of the young practitioner; for, although the instrument was previously introduced dripping with oil, such was the heated, dry, and tender state of the canal, that the tube could not be passed without much difficulty, and occasioning great suffering. The expedient of first introducing a bougie covered with morphine ointment, to use the words of the patient, "made him quite in Heaven." I need not occupy the valuable pages of The Lancet with the details of the medical treatment of this case: suffice it to state, that in this, as in instances of a like nature, anodyne enemata, according to my experience, are the most effectual palliatives.

Crescent Lodge, Clapham-common,
April, 1841.

TOOTHACH.

It is well worthy of being more generally known that the following formula will always remove the toothach in a few minutes, say ten or fifteen, if the bowels are not unhealthily confined. The dose of the opiate should be proportioned, as well as may be, to the violence of the pain; for it will produce no constitutional effect whatever, while it has a violent toothach to grapple with:—

℞ *Carbonate of ammonia*, gr. x;
Sedative solution of opium, M. xv;
Ipecacuan wine, M. xv;
Colchicum wine, M. x;
Camphor mixture, ʒx. M.

REPORT ON THE MORTALITY OF LUNATICS.

By William Farr, Esq., F.S.S.

[Read before the Statistical Society of London, 15th March, 1841.]

(Continued from page 255.)

To what is this excessive mortality to be ascribed—to the disease or to the treatment?—The question cannot be positively answered, nor can the causes of the difference in the mortality be determined, without a careful examination of all the circumstances. I shall briefly notice the chief causes to which the mortality of lunatics in asylums *has been*, or *may be*, ascribed.

The visiting justices of Hanwell state as "an extraordinary and disgraceful fact," that numbers of patients are sent into the asylum, as it would seem, to die. Of 656 deaths, 64 occurred within a month after admission. A similar complaint is made at many hospitals; and there is probably a tendency to send dangerous cases, or cases in their most critical stage, to public institutions. The exclusion of such cases from Bethlem reduces the mortality, but they cannot all be excluded without giving the asylums the advantages of that *selection*, which is so profitable to assurance offices. For in a disease so fatal as insanity, a certain number of lunatics are necessarily on the verge of death at the period of the disease when admission into an asylum is usually sought; and a due proportion of such cases cannot fairly be excluded.

Reference has also been made to the fact, that out of 834 patients in Hanwell, on December 31st, 1839, about 655 had been in other asylums, or workhouses, for considerable periods. Many cases were admitted in the chronic stages of insanity; but this, though it will account for a smaller number of recoveries, and the high proportion of fatal cases, will not account for a high *annual rate* of mortality. The *annual rate* of mortality is greater in the acute than in the chronic stage of insanity. Thus, at the hospitals of Bethlem and St. Luke, the annual mortality among the class called "curables" was 11 per cent., and only 6 per cent. among "incurables" (chronic cases). At Hanwell the annual mortality of lunatics in the state of mania, monomania, or melancholia, appears, so far as it can be determined, to be about 12 per cent.; while in cases of incoherence, imbecility, or dementia (chronic stages of insanity), about 8 per cent. die annually.

A return in the Hanwell Report shows the numbers admitted during each separate year into the asylum, and the numbers discharged cured, relieved, or dead, year by year. The return extends from May 16th, 1831, to September 30th, 1840. From this table we learn that 422 lunatics were admitted in the year 1832; that 55 of them were cured or relieved, and 55 died during that year, leaving 312 to enter upon the next year (1833), when 27 of them were cured or relieved, and 31 died; and so on, year succeeding year, until September 30th, 1840, when 137 remained in the asylum. The patients admitted in 1831, and in 1839-40 (the two last years), have been set aside; and the 1389 lunatics admitted in the seven years (1832-38), have been followed to the end of 1839. The 422 lunatics, it may be assumed, were admitted at equal intervals of time in 1832, or the middle of the year 1832 may be taken as the mean time of their admission; whence it follows, that of 422 admitted in the year 1832, 55 died in the *half-year* following; 31 in the next *year*, &c. The table, therefore, permits us to trace 422 lunatics admitted in 1832, to death, recovery, or relief, during 7½ years; and 325 admitted in 1838 to the end of 1839, or for a period of only 1½ year. The subjoined table presents a summary of these interesting facts; which, in the form of publication, are analogous to the tables of lives published by the Equitable Society:—

Table of the Deaths and Recoveries in Different Stages of Insanity.

Years.	Entering on each Period.	In the succeeding Periods.			Remained in the Asylum at the end of the Period.
		Cured.	Relieved.	Died.	
0.	1389	125	25	152	..
0.5	1087	142	13	130	208
1.5	594	14	9	42	30
2.5	499	9	..	45	46
3.5	399	10	2	28	51
4.5	308	6	2	20	34
5.5	246	4	..	21	66
6.5	155	4	1	6	144

The table is read thus:—Of 1380 lunatics *entering* upon the *first* period (half-year) 125 were discharged cured, 25 relieved, and 152 dead in the next *half*-year; of 1087 who entered upon the *second* period, 142 were discharged cured, 13 relieved, and 130 dead in the subsequent *year*, at the end of which 208 were lost sight of. For the reason before stated, it will be observed that the *first* period extends to the end of the sixth month; the second from the end of the sixth to the end of the eighteenth month; the third from 1½ to 2½ years, &c.

From this arrangement of the facts, the annual rate of mortality and recovery in the several stages of insanity, subsequent to admission, at Hanwell, may be deduced.

Table of the Number of Insane Persons living, cured, and dead; and of the Annual Rate of Mortality in Different Stages of Insanity.

No.	Period of the Disease from the Date of Admission.	Number living One Year.	Cured or Relieved.	Died.	Out of 100 living One Year.	
					Cured or Relieved.	Died.
	Years.					
1	0 0½	619	150	152	24.2	24.6
2	0½ 1½	944	155	130	16.4	13.8
3	1½ 3½	1033	32	87	3.1	8.4
4	3½ 5½	673	20	48	3.0	7.1
5	5½ 7½	383	9	27	2.3	7.0
	0 7½	3652	366	444	10.0	12.2

The numbers stated to have been *relieved* were 14 per cent. of the numbers *cured and relieved*; and as the proportion remained nearly the same through the seven years, the two classes of facts have not been distinguished.

The annual rate of recovery in the *first half-year* was 24 per cent.; and the rate of mortality was nearly 25 per cent. The two rates remain high in the *second period* (the rate of recovery 16, and of mortality 14, per cent.), while they declined respectively to 3, and to 8 per cent. in the *third* period; and to 2.3, and 7.0 per cent. annually, between the 5½ and 7½ years after admission into the asylum.

The rate of mortality in an unit of time increases as the malady advances up to a certain point, and then declines regularly, in all diseases which have hitherto been investigated arithmetically. In cholera, the rate of mortality is highest at eighteen to twenty-four hours; in small-pox, the mortality is highest from the 10th to the 15th day; in consumption, the rate of mortality appears to be greatest from the sixth to the ninth month. The variation in the rate of mortality and recovery in small-pox is shown below:—

Days of the Disease*	5—10	10—15	15—20	20—25	25—30	30—35	35—40
Daily Deaths in 100 living	6.4	31.5	27.2	8.5	4.3	2.8	2.0
Daily Recoveries in 1000.....	.1	.2	1.8	9.2	19.7	34.8	47.5

Insanity is regulated by analogous laws; and a majority of the patients are admitted at Hanwell before the disease has passed the point at which the mortality declines, although many are admitted afterwards, when the rate of recovery is reduced much more than the rate of mortality.

At Hanwell, 18 in 100 living die annually in the first 1½ year; and 8 in 100 annually for six years afterwards. If an asylum, therefore, contained none but persons in the first year and a half of the disease (after admission is always understood), the mortality would be 18 per cent.; while it would be 8 per cent. in an asylum for chronic cases between 1½ and 7½ years. Without implying any disparagement to the treatment in the former case, the rate of recovery in the two asylums would differ in a still greater degree, as it would be 19 per cent. in the first

* British Medical Almanack, 1838, p. 212.

asylum, and only 3 per cent. in the second, set apart for the exclusive reception of the advanced cases. This separation seldom takes place in practice. The chronic and acute cases are always mixed in an institution like Hanwell; but it is evident that in the first years after it was opened, the proportion of cases in the early stages must have been greatest, and the proportion of lunatics in advanced periods of the disease must have since progressively increased. According to the above laws, the proportion of deaths and recoveries should gradually have declined, and this was the fact.

Periods of Three Years.	Lunatics* existing One Year.	Died.	Recovered.	Annually out of 100 living.	
				Died.	Recovered.
1831—3	1147	197	165	17.2	14.4
1834—6	1754	194	119	11.1	6.8
1837—9	2121	215	168	10.1	7.9

The annual mortality was 17 per cent. in the first three years, and 10 per cent. in the last three years; the annual rate of recovery was 14 per cent. in the first, and 8 per cent. in the last period. In the licensed houses which have been many years in existence, the annual rate of mortality was 13.6 per cent. in 1833-36, and 17.2 in 1836-39!

When the rates of mortality and recovery in the several stages of insanity are ascertained, the effects of treatment and external influences can be compared in asylums containing the various classes of patients, in proportions as different as at Hanwell in 1831-33, and 1839-40. The rule is:—multiply the number of lunatics existing at the several periods of the disease by the corresponding rates of mortality and recovery (0.242, 0.246, &c. &c., p. 25), and the sum of the products will represent the number of deaths and recoveries. By this rule the deaths in Hanwell during the 1¼ year, ending September 30th, 1840, should have been about 140, and they were 128; the numbers cured or relieved should have been about 126, and they were 154.

It will be found by this rule that the rate of mortality among paupers in the licensed houses and in Hanwell, has differed less than the first results of the returns would lead us to suppose, although it has been excessive in both. The paupers remain little more than a year and a half (1.67) in the licensed houses, in which the annual mortality was 21 per cent.; at Hanwell the annual mortality in the first 1¼ year after admission was 18 per cent.

From the facts given at p. 303, part of a table of mortality and recovery may be constructed for lunatics.

Nosometrical Table.

No.	Period of the Disease, dating from the Day of Admission.	The Number of Lunatics who			Cases terminating in each Period.		
		Enter upon each Period.	Will Recover.	Will Die Insane.	Total Number.	By Recovery.	By Death.
	Years.	*a*	*b*	*c*	*d*	*e*	*f*
1	0	1000	380	620	217	108	109
2	0.5	783	272	511	213	112	101
3	1.5	570	160	410	61	21	40
4	2.5	509	139	370	48	12	36
5	3.5	461	127	334	43	11	32
6	4.5	418	116	302	41	11	30
7	5.5	377	105	272	35	9	26
8	6.5	342	96	246	32	8	24
9	7.5	310	88	222	..	..	..

If we take 1000 lunatics at the stage of the disease corresponding to the time of admission at Hanwell, 217 will be discharged (108 recovered or relieved, and 109 dead,) in the half-year following, leaving 783 to enter upon the second period, to be reduced year by year, until at the end of 7½ years only 310 remain. The range of the present series of observations extends no further, but the relative proportion of recoveries and deaths remains nearly as 88 to 222 during the last six years; and to complete the scheme of the table it may be assumed tha

* Deduced from annual enumerations of the males and females; the years of life = 5022. From daily enumerations the years of life = 4936.

88 of the 310 will recover, and 222 will die. The columns *b*, *c*, show, therefore, that of 1000 cases, 380 will recover, and 620 die; that at the end of 1½ year, 160 will recover, and 410 will die.

The columns *e*, *f*, showing, first, the numbers cured ("or relieved," is understood invariably); and, secondly, the numbers dying in each period are readily deduced from the table at p. 303. Thus 150 were cured, and 152 died in the first half-year, out of 1389 cases; consequently, 108 were cured, and 109 died out of 1000 cases, which form the basis of the new table. As 217 cases terminated during the first half-year, 783 entered upon the second period, when the amount of recovery having been $= \frac{108}{1000}$, and the mortality $= \frac{109}{1000}$, exactly 112 recovered, and 101 died. By continuing the process, the deaths and recoveries are obtained for each year. The columns *a*, *b*, *c*, are obtained by the successive subtraction of the numbers in columns *d*, *e*, *f*, and the first number (620) in column *c*, is the sum of those who died in the 7½ years, = 398 + 222, the number who, it is presumed, will die insane *after* that period.

The numbers representing those who will die and recover (columns *b*, *c*,) decrease at an uniform rate after the second year, and the seven terms of the series, column *c*, are obtained by multiplying the last (222) successively by 1.1075 (log. 0.044338); the six terms in the series, column *b*, are deduced in the same way, from 88 raised successively by the rate 1.0966 (log. 0.040072). The two series of numbers obtained by the hypothesis, agree very closely with those directly deduced from the observations—

Years.....		1½	2½	3½	4½	5½	6½	7½
Numbers to die insane	Direct observation	417	376	330	298	271	239	226
	By Hypothesis...	410	370	334	302	272	246	222
Numbers to recover.....	Direct observation	..	138	129	115	104	98	87
	By Hypothesis...	..	139	127	116	105	96	88

Halley invented the Table of Mortality, which consists of three columns, showing the number of persons who die or survive in each successive year. The events it exhibits are of one kind; all the persons die. But cases of *disease* may terminate in two ways—by death, and by recovery. A different tabular construction was therefore required for sick persons, such as the one preceding, from which the *mean future duration*, the *probable duration*, the *probability of recovery*, and the *probability of a fatal termination* in any given time, can be determined at any period of the disease.

The *mean future duration of insanity*, or *the expectation of disease*, cannot be deduced from the preceding table, because it breaks off at the end of 7½ years; but if the annual rate continued the same (1.10), 7 of 310 would remain insane 40 years, and the mean future duration of insanity at the period of admission at Hanwell would be 6.7 years; at the end of half a year, it would be 8 years; and after 1½ year, it would be 10 years.

In the six years 1834-39, when the inmates were = 3875 living 1 year, 706 were discharged; one in 5.5 therefore was discharged annually. If the institution had existed several years, and the numbers admitted and discharged had been equal, the mean duration would have agreed with this, and have been 5.5 years; but as Hanwell was opened in 1831, and only 1179 out of 2029 admitted, had been discharged on the 30th September, 1840, the 6.7 years is probably nearer the true mean duration.

(*To be continued.*)

THREE CASES OF POISONING WITH ARSENIC.

To the Editor of THE LANCET.

SIR:—*If* you consider the following cases worthy a place in your popular Journal, I shall feel obliged by their insertion. Yours obediently,

MICHAEL FOSTER.

Huntingdon, April, 1841.

E. B., the mother of five children, æt. 37, had been in a desponding state of mind, with general debility of the system, for some weeks. On the 26th of May, 1838, I was hastily summoned to her residence, a distance of eight miles. I arrived about one o'clock, P.M., and found that my friend, Mr. Evans, of St. Neot's, had been in attendance for an hour and a half. This poor woman had administered arsenic to her two children, and then taken it herself. I had no means of ascertaining the quantity; she had mixed it, for herself and eldest child, in

the yolk of an egg, and for the infant in pap. From the evidence of the servant girl, it appears the poison must have been taken some time between half-past nine and eleven o'clock, A.M. The difference of the effects produced in each patient was remarkable, and requires separate consideration.

Case I.

The mother, when first seen, shortly after eleven o'clock, was sensible, and confessed to having given the children arsenic, and taken it herself; she was vomiting violently, and complained of a burning sensation at the pit of the stomach; there was constant tenesmus, with dejection of mucous stools; pulse, small and rapid; violent delirium soon followed, with tetanic convulsions, requiring the utmost exertion of four persons to hold her in bed; the conjunctiva of the eye became intensely injected; the pupils, from being minutely contracted, became exceedingly dilated; the eyeballs fixed upwards; the mouth drawn in all directions, exhibiting one of the most horrid spectacles imaginable. This state continued for some minutes, calmness and repose followed, in which she expired, about one o'clock, not more than three hours and a half after having taken the poison.

Post-mortem, Twenty-four Hours after Death.

I regret that circumstances would not allow me an opportunity of examining the head in this or in either of the other cases. The stomach, small intestines, and bladder, on their peritoneal surface, exhibited much inflammatory vascularity. The stomach contained a pint of thin glairy fluid, of a yellowish colour; some white powder (proved to be arsenic) was seen to adhere in some places to the villous coat, which in every part was red and inflamed, but not nearly so much as in the children. The heart was healthy; much dark blood on the right side. The lungs were healthy except their apices, which were studded with tubercles in the first stage, and where there were some hard dark-coloured patches, of an irregular surface, and of the size of a sixpence, similar to the cicatrices of cured tubercles, as mentioned by Carswell, Andral, Louis, &c. All the other parts examined afforded no evidence of disease.

Case II.

Elder child (girl), aged two years and a half, when first seen was in a comatose state. She had been sick and convulsed, and had suffered severe pain; but now there was complete insensibility; the face was swollen, and of a livid hue; the pupils dilated; the breathing difficult; the extremities cold. She was, in fact, in a complete state of narcotism, and died about half-past eleven, not more (probably less) than two hours after taking the dose.

Post-mortem.

The stomach contained three or four ounces of fluid, with some particles of white powder; the redness of the villous coat was of a vermilion hue, much more so than in Case I.; much less than in the infant, Case III. The other appearances were similar to those in the mother.

Case III.

The infant, aged five months, I found, about three hours after swallowing the poison, in great agony, with severe bilious vomitings, and convulsions; the extremities cold, the lower ones retracted to the abdomen, which was swollen and tense; the countenance pale, and pulse imperceptible. The usual remedies were administered, but the child gradually sunk, and died about four o'clock, six hours and a half after taking the arsenic.

Post-mortem.

All appearances the same as in the foregoing cases, except that the villous coat of the stomach was in the highest state of inflammation, and in the greater part of its extent the redness was of the brightest scarlet colour; in patches there was an effusion of dark blood; no ulceration; no thinning of the coats.

An analysis of the contents of the stomach in each case afforded the usual colours, and deposits with ammoniated sulphate of copper, and ammoniated nitrate of silver; and arsenic in its metallic state was procured from each stomach.

Remarks.—First, the very early period at which death took place is worthy of observation. Dr. Christison (in his work on Poisons, p. 276, second edition) quotes a case from Pyl, which proved fatal in three hours, and says, "this is the shortest case of poisoning from arsenic which I have hitherto found in authentic records." In Case II., that of the little girl, death followed, as I have stated, in not more, probably less, than two hours. As this is a fact of some importance, I made minute and careful inquiries. The child died at half-past eleven; the husband and servant both stated that they were present with the poor woman during the morning until half-past nine (they breakfasted with her, as usual, at nine); and during that time it was scarcely possible for her to have taken the arsenic without their knowledge. At half-past nine the husband left to go into his fields; the servant went into the kitchen; the mother almost immediately proceeded up-stairs with the two children, and there remained until they were discovered in the state above-mentioned. The supposition that this was the time the arsenic was taken, is further confirmed by the fact that the mother earnestly entreated that an elder child might stay from school that morning, she having intended, as she stated before her death, to give that child

some of the arsenic as well as the other children. It will be seen that the mother died in three hours and a half, whilst the infant lived six hours and a half. Did the mixture of the arsenic with the milk retard its action in the latter case?

Second. The very considerable *variety* of *symptoms* and pathological appearances in each case:—

Case I. Mother.—Intense excitement of the nervous system, with comparatively slight local inflammation of the stomach.

Case II. Elder child.—Disturbed action of the heart and circulating system, almost amounting to narcotism, with a greater degree of inflammation of the stomach.

Case III. Infant.—Very great and violent local inflammation, with slighter remote symptoms.

THE LANCET.

London, Saturday, May 22, 1841.

THE prominent part which the *New Poor-law* is destined to play at the approaching general election, has been fore-shadowed by the return of MR. WALTER, for Nottingham. In the eyes of the Medical Profession—who consider everything in its relation to the public health—this question stands next in importance to Medical Reform. They are well aware that cheap dwellings, cheap sugar, and cheap bread, are excellent things—that they are absolutely indispensable in the present state of the country, and that the measures by which they are secured will have a tendency to lessen ultimately the mortality and miseries of the people. But the support of measures which promise to place the necessaries of life within the reach of the poor, is by no means incompatible with strenuous opposition to the extension of the workhouse-test; nay, it rather implies a settled determination to get rid of the oppressive system which touches the destitute poor still more directly and fatally than the Corn-laws. As the State pays to the army, navy, and civil officers of the Crown, a part of their earnings, and retains another part, which is paid to them in the event of infirmity or superannuation, the land and the employers of the working classes have been charged with a rate on which the latter have an irrecusable claim in case of sickness, infirmity, age, or accidental destitution. Their right to relief under these circumstances rests on the old foundation of the constitution of England. The employers of the poor kept back a part of their wages as a contribution to this superannuation fund; the real property of the country has been bought, sold, and inherited, subject to the poor-rate, from immemorial time. The *Poor-law Amendment* (?) Act deprived thousands of the poor pensioners suddenly of relief from this national source, under the pretext that the amount of relief was enormous, and increasing; while the fact was, that in the twenty years preceding, the sum paid for the relief of the poor only increased 1¼ per cent. decennially—while the population increased 16 per cent., and the wealth of the country 20 per cent. The Poor-law Commissioners state, that in eight counties—with a population of nearly *two millions*—99,896 paupers, designated *able-bodied*, were *relieved* in the year, March, 1833-4; while 35,323 only were relieved in the year ending 25th March, 1839. In this time 64,573 of them were "thrown upon their own resources." They were rendered "independent," pretty nearly in the same sense as were the victims of the West-Middlesex Company, or as the Chelsea pensioners would be if their pensions were stopped. This was not all, for the return states that in the same counties 97,266 *other paupers, not* able-bodied, but *sick, infirm, helpless, or aged, were refused relief*: 231,761 of them having been relieved in 1833-4, and only 134,495 in 1838-9!—("Fifth Annual Report," p. 14.) What has become of the 97,266? The encumbered churchyards can perhaps answer.

If we assume for a moment that the pensions should never have been granted to these 97,266 disabled poor people—that their pension-system, though still preserved in the civil and military services of the country, should have been abolished—was it just or humane to stop the allowances suddenly, without notice? The number of out-pensioners of

Chelsea Hospital was 79,500 in 1835-6, when their pensions amounted to 1,359,463*l*. Did any economist ever propose to stop the payment of this sum suddenly, and to throw them upon their own resources? If the abolition of the out-pension system were decreed, would the operation of the law be made retrospective? Would not the present pensions be continued, the pay raised, and the soldiers informed that *for the future* they must lay by a part of their earnings to secure a provision against the accidents of life? How were the notorious sinecurists on the Civil List dealt with? Were they offered the alternative of imprisonment, or the loss of their pensions? Were they thrown untenderly on their own resources, or the resources of their noble relatives? No such thing. The House of Commons was full of sympathy for the coronetted paupers and illustrious Magdalens; pathetic tales were told, tears were shed, and the revision of the Civil List, excepting in a few trivial cases, was made altogether prospective. Why another "foot-rule" was applied to the worn-out agricultural labourer, the broken-down tradesman, or the disabled artisan, it is not for us to say; we advert to the past, not for censure, but for instruction, and with the hope of putting a stop to the further extension of a system of unparalleled cruelty and truculent injustice, such as never before entered into the hearts of Englishmen, or stained the annals of England.

We have cited examples of the sufferings to which the deserving poor submit, rather than enter the workhouses; and have proved that the collection of great numbers in these prisons augments the mortality, to a terrific extent: that the mortality in the prisons has been 1¼ per cent., while in 110 workhouses (1837) not less than *twenty* per cent. died annually. Yet at the present hour 98,000 poor people are confined in the workhouses. The English prisons contain about 11,000 criminals; and nine times the number of paupers are imprisoned in workhouses, under "discipline and restraint," living on a low dietary, which does not cost threepence a head, daily. The Commissioners are not satisfied with this vast system of tyranny; workhouses are springing up all over the country at their bidding. They state in their last report, that in the preceding year they had ordered seventy workhouses to be built—each to cost from £2000 to £23,000, and to contain from 100 to 1000 paupers. They propose to apply the workhouse-test to the 560,000 persons who are still receiving out-door relief: 236,000 are aged and infirm persons; and as 87,000 are returned as "partially able to work," they insist that the test should be applied in their case, "to "*relieve the country from a large expense with* "*which it is fraudulently burdened.*" They apply the same observations to 28,880 able-bodied *widows*, with families of 77,089 children; and quote, with approbation, the guardians of the West Hampnett Union, to the following effect:—

"*All relief, except relief in the workhouse,* "*should be withheld from a woman who may* "*be unfortunately* (the crocodiles!) *left a* "*widow with a numerous family;* every day's "experience tends to convince us that *work-*"*house relief is the only relief which ought to* "*be administered.*"

It is quite evident from these passages, and, indeed, from the entire series of reports, that the Commissioners contemplate the refusal of relief—the possible starvation—or the IMPRISONMENT—OF HALF A MILLION OF HER MAJESTY'S SUBJECTS. Will the House of Commons concede to them this tremendous power? A power which, while it will give them an unlimited command over the liberties and fortunes of the destitute, will involve in its exercise the destruction of thousands of lives.

Mr. MALTHUS proposed to abolish the Poor-laws; and the proposition was strictly in conformity with his theory: for he argued that the population was always in proportion to the amount of subsistence; he treated subsistence as an absolute quantity, not the product of intelligence and labour, but something regulating—creating, and not created: so that, despite of wars, plagues, famines, mur-

ders, and workhouses, we should always have the same population. Why, then, regret the untimely dead? Why save the infirm and aged? Why relieve the destitute? Benevolence, charity, and crime are a farce. It is the practice of some savage tribes to abandon or destroy their sick and aged; and if the Saxons did this, which we are not told by TACITUS they did, we are carrying out their principles by means of the workhouse-test; but the practice, recorded by HERODOTUS, of a tribe of Nomad Tartars, who, to eke out subsistence, ate their own fathers, would be in still more strict conformity with the modern doctrines of population, and in time may probably come to be considered worthy of the consideration of Parliament.

The proposition for the abolition of Poor-laws has been universally rejected; as well as the sophistical reasoning which traced all the miseries of the poor to the relief which they received in mitigation of those miseries. The condition of the poor in Ireland and Scotland gave the lie to the fallacy. But the Poor-law Commissioners have maintained that it was a part of their mission to place the majority of the poor beyond the pale of relief; by attaching to its reception the punishment and infamy of workhouse imprisonment, in addition to that natural repugnance which the industrious man feels to bread obtained by dependence on charity, and not by the sweat of his brow. The workhouse-test is to be applied to all; and as it allows of no distinction between the spendthrift, the idle, the man of bad character, and the honest and industrious, but unfortunate, workman, the Commissioners turn round and coolly declare, that no such distinction should be observed in the administration of the charity and superannuation pensions of the country. All comforts are to be denied to all. There is to be no respect of persons.

Our doctrine is, that so far as is practicable, all the relief to the destitute should be administered at their own homes; that in periods of manufacturing distress, and in severe seasons, thousands of the poor should not, on the one hand, be allowed to starve, nor on the other be dragged from their dwellings into crowded workhouses, there to generate ravaging epidemics; and, finally, that while all the destitute are supplied with the absolute necessaries of life, the well-deserving and hard-working labourer should not be altogether deprived of the comforts of existence, particularly in advanced age. Medical relief should be liberally granted; medical officers of high character, and not shameless impostors, should be employed, and paid at a rate which would secure the poor a fair share of their services, as well as good medicines; and would enable the rate-payers to place implicit confidence in their recommendations as to diet, and other parts of medical treatment, which have as much to do with the cure of disease as drugs. The only test applicable to the able-bodied, at once flexible, adequate, and humane, is the labour-test; which, with a little care and ingenuity, may be adapted to the different classes of workpeople, and be made useful by being directed to public purposes, which would not interfere with the common-labour market.

In support of those doctrines we are able to cite a very high authority; in fact, no other than the noble lord, the Secretary for the Colonies, in an essay (which we strongly recommend to our readers), on the "English Government and Constitution."* "The Act "of ELIZABETH," says his Lordship, "directed that *the old and impotent should be "provided for*, and that the strong and "healthy should be set to work. The first of "these two directions is *the law of a tender "and humane people, and will, I hope, ever "remain upon the statute-book of England.*" The law has been effaced since the essay was written; will his Lordship assist "a humane people" in their efforts to restore it to the statute-book of England?

His Lordship justly ascribes the fraudulent payment of the wages out of the rates—not

* Page 262-8.

to the poor, but to their employers; and adds a sentence, which of itself is sufficient to demonstrate the futility and superfluous cruelty of the workhouse-test:—

"Labourers themselves undoubtedly pre-
"fer the hard-earned bread of independence
"to the stinted and litigious charity of an
"officer of the poor. *It is only a bad system*
"*on the part of the rich that can debase the*
"*indigent.*"

In answer to the abolitionists he remarks:
"In a country subject to such violent tran-
"sitions from the revolutions of trade and
"commerce, it would be *cruel and inhuman*
"to expose the labouring classes *to the ruin*
"that would follow a period of agricultural
"or manufacturing distress. The Poor-laws
"must be pruned, not rooted up; the knife,
"and not the axe, must be used."

The universal extension of the terrible workhouse system, then partially known, was never contemplated by his Lordship in 1823; but the opening paragraph of the chapter will apply with remarkable correctness to the present time:—

"There is nothing, perhaps, in the whole
"state of England more *threatening to its*
"*tranquillity* and the *permanence of its con-*
"*stitution than the present administration of*
"*the Poor-laws.* The *perversion* which has
"been made of them from the original mean-
"ing of the statute of ELIZABETH, has at
"length fallen most heavily upon those who
"thought to draw from it a selfish gain."

Our readers will, we are confident, not forget these principles in electing the lawgivers "of a tender and humane people."

OUR attention has been directed to an "Essay on Medical Reform," by Mr. SIMPSON, of Guildford-street; which we should have been happy to notice before, if our copy had not been mislaid; for Mr. SIMPSON has succeeded in setting many points of the Reform question in a striking light. His essay is the reprint of an article originally published in the "British and Foreign Review."

Mr. SIMPSON comments somewhat severely on the achievements of *pure English physicians*:—

"We except the candidates for medical honours at Oxford and Cambridge: it having been admitted by Sir Henry Halford, when examined before the Medical Committee, that the only reason why Oxford and Cambridge ought to be supported was—the superiority of the *moral* and classical education which the members had to go through. He also admitted, that for such graduates to be able to practise successfully, it would be necessary (*after having received the degree of M.D.*) for them to go to Edinburgh, Paris, or some university on the continent, to learn their profession. When did we ever hear of a pure English physician being at the head of the medical departments of the army or navy? Was Sir Gilbert Blane one of the morally-educated pupils of Oxford or Cambridge? Is Sir James MacGregor one of them? Is Sir William Burnett one of them? Is Dr. Hume, the friend and companion of the illustrious and sagacious Duke of Wellington, one of them? Is Sir James Clarke one of them? Or was their venerable and adopted Dr. Babington one of them? When did we ever hear of one of them being at the head of the medical departments in Russia? When did we ever hear of one of them being the most eminent physician in Constantinople? Or when did we ever hear of one of them finding favour in the intellectual eyes of the Pacha of Egypt? When did we ever hear of them risking their lives in wandering over deserts and climbing mountains, in the hope of discovering some herb or medicine that might be useful to the human race, or exposing themselves to the black vomit of the West Indies, or the plague-spots of Egypt?"

The following passage is not inappropriate at the present time:—

"How then does it happen that nothing is done? There are various reasons; such as opposition from interested parties, to which we have alluded; but still more the state of political parties in the House of Commons, from which it results, that the Ministers and their dependents are more attentive to, and occupied by manœuvres to defeat their adversaries, than in getting rid of public and private grievances and oppressions. Yet on this point the *Reforming* Ministry must not stop. Lord John Russell must, as a matter of course, follow up his principles in reforming such abuses as exist in the medical corporations; and of obstruction, this not being a party matter, his supporters cannot throw the whole onus on the House of Lords, whom they have been so willing to censure but so loth to combat. Let him not then stand any longer in the way of a needful reform in a respectable and honourable profession, in forwarding which there is not the least danger

of his favourite views being affected; perhaps, his showing some ardour in such a cause might help to make up for his unpopular doctrines on other subjects. Let him not leave too many such questions to be taken up by his expectant successors, by which they would be able to make themselves popular with a set of gentlemen who are not few in number, nor without interest in the community, who are scattered over every county and borough in the United Kingdom, who can and will act on election committees, and who can, and if necessary will, assist in the putting out of any member of Parliament who refuses the justice which they demand. If the present Ministry wish to stand well with the great body of the medical profession, let them do something, or let them pledge themselves to do something, which may justify their friends and supporters in giving them time. Above all, let them not allow it to appear as if indolence of their own, or flattery of interested parties, weighed more with them than the almost unanimous opinion of those who are best qualified to judge, in every part of the United Kingdom."

THE following Bill has been prepared and brought in by Mr. FOX MAULE and the SOLICITOR-GENERAL. We regret that the amendment is not more extensive; and that steps have not been taken to place the administration of the law in the hands of competent medical authorities:—

A BILL

To amend an Act to extend the Practice of Vaccination.

Whereas an Act was passed in the fourth year of the reign of her present Majesty, intituled, "An Act to extend the Practice of Vaccination;" but no express provision was thereby made for defraying the expenses of carrying the same into execution;

Be it therefore declared and enacted, by the Queen's most excellent Majesty, by and with the advice and consent of the Lords spiritual and temporal, and Commons, in this present Parliament assembled, and by the authority of the same, That it shall be and be deemed to have been lawful for the guardians of every parish or union in England and Ireland, and the overseers of every parish in England by whom the contracts for vaccination may respectively be or have been made under the provisions of the said Act, to defray the expenses incident to the execution of the said Act out of any rates or monies which may come or may have come into their hands respectively for the relief of the poor.

And be it further declared and enacted, That the vaccination, or surgical or medical assistance incident to the vaccination, of any person resident in any union or parish, or of any of his family under the said Act, shall not be considered to be parochial relief, alms, or charitable allowance to such person, and that no such person shall by reason of such vaccination or assistance be deprived of any right or privilege, or be subject to any disability or disqualification whatsoever.

A Manual of Chemistry. By RICHARD D. HOBLYN, A.M., Oxon. Illustrated by Seventy-five Engravings. Scott and Co.

THIS is an excellent compendium, and is well calculated to confer benefit both on the student and on the medical practitioner. To the student it recommends itself by the conciseness and clearness of its explanations, and by the useful introduction which it affords to works of more recondite research. While to the practitioner it will be especially acceptable, as containing so much of the principles of chemistry as will be needful and applicable in his daily path of life. But it is not merely in a professional light that the work should be considered; it equally deserves our commendation as an important guide to general education. It were useless in us to dilate upon the necessity of a knowledge of chemistry, since that necessity is, at the present day, admitted on all sides; and no education can be regarded as complete, which does not embrace not merely an acquaintance with the leading principles of the science, but also many of its details, and particularly its application to science and art. The importance of chemistry to the science of medicine is illustrated at every step of its progressive improvement; and in its relation to general education, the author observes:—

"It can no longer be pretended that a liberal education may consist with an ignorance of those laws by the operation of which the order of Nature herself is preserved, the ever-varying changes of matter are regulated, and the innumerable processes which minister to the convenience, the wants, the happiness of man, are conducted. To mention one instance of the wonders opened to our view by a knowledge of this interesting science—Who, in the present day, would avow his ignorance of the application of steam to the whole science of navigation,—that 'new and mighty power,' to use the elegant language of Canning, 'new, at least, in the application of its might, which stalks the water like a giant, rejoicing in its course, stemming alike the tempest and the tide, accelerating intercourse, shortening distances; creating, as it were, unexpected neighbourhoods, and

new combinations of social and commercial relation; and giving to the fickleness of winds, and the faithlessness of waves, the certainty and steadiness of a highway upon the land?"

An important feature in Mr. Hoblyn's manual, and one calculated to be of great benefit to the student, is the introduction at the end of each chapter of a series of questions upon the principal points discussed in each division. The plan of the work is thus briefly stated by the author:—

"The plan which will be adopted in this treatise will comprise three sections. The first section will be devoted to the consideration of the Imponderable Agents of Chemistry. The second section will be devoted to the Chemistry of Inorganic Bodies. This section will embrace the laws of chemical affinity and combination, together with the chemical history of all the elementary bodies, and of the compounds which belong to inorganic matter. Of the elementary bodies, oxygen performs a most prominent part in the operations of Nature, from its tendency to combine with other bodies, and from the importance of the compounds it forms with them; this element will, therefore, be considered first. For the same reasons, in considering the other elementary bodies, the combination of each of them with oxygen will be particularly noticed. The other compounds which the non-metallic substances form with each other will next be considered. The metallic substances will be treated of, each in its individual character, and with reference to its combinations with the non-metallic substances and with each other. The third section will be devoted to the Chemistry of Organic Bodies, which may be divided into the products of vegetable and those of animal life."

With another short extract, in which the author pourtrays vividly the objects of his labours, and the essential advantages of the science, we shall conclude; which we do with the fervent hope that so valuable a science as chemistry will not be neglected by the medical student, to whom we again recommend the perusal of the little volume before us.

"The object of this treatise is to make the student acquainted with the facts which chemistry is daily presenting to our notice, to enable him, from consideration of these facts, to contemplate the laws which regulate the economy of Nature, to stimulate him to pursue the science even into its farthest recesses. Let him not suppose that all has been effected. 'Science,' observes Sir J. Herschel, 'in relation to our faculties, still remains boundless and unexplored; and, after the lapse of a century and a half from the era of Newton's discoveries, during which every department of it has been cultivated with a zeal and energy which have assuredly met their full return, we remain in the situation in which he figured himself—standing on the shore of a wide ocean, from whose beach we may have culled some of those innumerable beautiful productions it casts up with lavish prodigality, but whose acquisition can be regarded as no diminution of the treasures that remain."

BIOGRAPHICAL NOTICE

OF THE LATE

THOMAS HODSON, ESQ.,

Surgeon, of Lewes.

By Gideon Mantell, LL.D., F.R.S.

The death of an eminent physician or surgeon is not only a loss to the domestic circle, and to the inhabitants of the neighbourhood in which his talents were exerted, but also to the community at large; for with such a man perishes a vast store of knowledge and experience, which cannot be communicated to others, or be bequeathed to those who shall come after. This remark applies even to individuals who have largely contributed to the professional literature of their time; but it bears with still greater force on one who, engaged in extensive practice, is unable or unwilling to record his opinions and experience. The great loss which surgical science and suffering humanity have sustained by the death of Sir Astley Cooper will not be questioned; yet, in the metropolis, that grand mart for talent and ability of every kind, the crowd of able surgeons ready to supply the place of departed excellence, renders the bereavement less obvious and important. But in a provincial district, the removal by death of a professional man who, gifted with great natural abilities, had enjoyed the advantages of a sound medico-chirurgical education, had been engaged in practice for more than half a century, and during that long period had maintained an intercourse with the principal surgeons and physicians of the metropolis, and had kept pace with the advancement of professional knowledge, is a loss to society which cannot readily be supplied. Such a loss the county of Sussex has sustained by the death of that eminent surgeon, T. Hodson, Esq., of Lewes. This gentleman was the son of the late Rev. J. Hodson, of Old-place, Sandhurst, Kent, and was born at the residence of his father in 1762. After the usual course of scholastic education, and a surgical apprenticeship of five years, Mr. Hodson became a student at the Borough Hospitals, and was a pupil of Mr. Cline, at the same time as the late Sir A. Cooper, with whom he contracted an intimacy that ripened into a friendship, which terminated but with life. Having com-

pleted his studies at the hospitals, he was admitted a member of the College of Surgeons, and shortly after established himself in Lewes as a general practitioner, about the year 1787. Mr. Hodson's early career differed in no respect from the common lot of those who commence practice in a country town—labouring hard for a scanty pittance, and considering himself fortunate if the receipts of practice covered an expenditure conducted with the most rigid economy. At this period the vile system of letting out the professional attendance on the parochial poor, by tender, was introduced; and to the honour of Mr. Hodson it must be recorded, that he constantly refused to be a party to a measure alike degrading to the medical profession, and unjust towards the unfortunate paupers, who were frequently consigned to the inexperience and ignorance of the young practitioner that happened to be the lowest bidder, and this, too, for a paltry saving of five or ten pounds a-year in the surgeon's salary; while it frequently happened that ten times that sum was expended in the after-support of the patients whose illness or injuries were protracted or rendered incurable by the inattention or inexperience of the cheapest doctor. After several years spent in the assidnous discharge of the duties of a practice, very limited, and of a character by no means commensurate with his deserts, Mr. Hodson began to think seriously of a removal from Lewes, intending to establish himself either in London or Brighton, which was then rapidly rising in importance. Circumstances, however, occurred to make him abandon this intention; but which, notwithstanding his brilliant career in Lewes, he ever deeply regretted. At this time Dr. Bayford, who had been an eminent practitioner in London, and had retired from practice in consequence of a delicate state of health, took up his residence in Lewes, and soon found himself consulted by the principal families in the neighbourhood. Desirous of avoiding the fatigues of practice thus unsolicitedly pressed upon him, and finding in Mr. Hodson a young man of decided ability and of great promise, Dr. Bayford strongly recommended him to his patients. It was, too, at this gentleman's suggestion that Mr. Hodson was induced to undertake the operation of lithotomy; and the first case on which he operated proving eminently successful, he obtained the reputation of a skilful operating surgeon, which subsequent practice fully established. Persons afflicted with calculus came from all parts of the county to consult him, and for a long course of years he operated without one fatal result; and although at length a few cases terminated unfavourably, yet upon the whole his success as a lithotomist stands very high, and has seldom been surpassed. When seventy years of age, this veteran surgeon operated successfully, and removed a stone weighing six and a quarter ounces, from a patient at Winchelsea. Nor was Mr. Hodson less skilful in other departments of surgery; indeed, for a long period he was the leading surgeon of that part of England, and was consulted in most cases of importance by his professional brethren. As a physician and accoucheur he was equally eminent; prompt, decisive, energetic, yet cautious in practice; kind and affable in manner and deportment; unremitting in attention, and deeply interested in the welfare of his patients; generous and liberal in the extreme; he was beloved and respected by all classes.

The writer of this imperfect sketch has often attended with him in cases of difficulty and danger, and assisted him in numerous important operations (lithotomy, amputation, hernia, aneurism, &c.); and although it has since been his lot to attend in consultation with many of the leading surgeons of the metropolis, he can declare that he has never seen surpassed the skill, presence of mind, and humane and indefatigable attention of the late Mr. Hodson. The desire of advancing medical science was in the subject of this memoir a passion which prevailed to the last moments of his existence. At a time when violent prejudices prevailed against anatomical inspections, he spared no pains to remove those erroneous impressions, and never neglected a *post-mortem* examination when permitted, however much he might be fatigued and harassed by engagements. On one occasion he accidentally wounded the finger of the writer who was assisting him in the examination of a body, and nothing could exceed Mr. Hodson's kind anxiety lest the accident should be attended with serious consequences, as it at first threatened to be. On the day before the paralytic seizure which terminated Mr. Hodson's valuable existence, he performed the *post-mortem* examination of the body of an old friend, who had left a written request to that effect. Mr. Hodson, like his friend Sir A. Cooper, therefore, died "in harness," as the latter used to express a wish to do; for he continued the exercise of his profession in his seventy-ninth year, until three days before his decease. Unremittingly engaged in practice, and devoting his few leisure hours to the sports of the field, or to cricket (an amusement to which he was much attached), Mr. Hodson has, we fear, left but few notes of his practice and experience. Had he removed to London, as he contemplated some twenty years since, there can be no doubt that he would have taken a foremost place among the surgeons of the metropolis; and his name would have been associated with that of Cooper, Cline, Abernethy, and other eminent men who have shed a lustre upon British surgery. But if the sphere of his exertions was less lofty, it was not less useful and important, and it involved far more

arduous duties: Mr. Hodson's was, indeed, a life of labour, for which the pecuniary reward was very inadequate. In no other profession would such talents and exertions have been productive of so little benefit to the individual; the proceeds of his practice, we believe, never much exceeded 2000*l.* per annum, for an amount of medical and surgical skill and labour, which in the metropolis would have realised five or six times that sum. Mr. Hodson has left no son; but he has a nephew in the profession, and it is to be hoped that this gentleman will endeavour to preserve some record of his uncle's professional opinions and experience, and do justice to his memory, by a far more elaborate and faithful sketch of his life and character, than the scanty materials in the possession of the writer of this brief notice have enabled him to attempt.

In this feeble tribute to the excellence and professional endowments of a practitioner with whom, for more than a quarter of a century, he was placed in the position of a rival, and in daily professional competition, the writer is anxious to do justice to the memory of a man, whose virtues he respected, and whose talents he admired; and prove that a generous rivalry, even in the medical profession, is not incompatible with mutual respect and regard.

Crescent Lodge, Clapham Common,
April, 1841.

BRITISH MEDICAL ASSOCIATION.

Exeter Hall, May 18, 1841.

ROBERT DAVIDSON, Esq., V.P., in the chair.

THE minutes of the last meeting were read and confirmed.

W. Self, Esq., 8, Lucas-place West, Commercial-road, was unanimously elected a member of the association.

Two cases of application for pecuniary assistance having been reported favourably on by the "Benevolent Purpose Committee," were relieved.

A letter was read from Mr. Warburton, intimating that he had presented the petition of the President and Council of the British Medical Association, in favour of the principles of Mr. Hawes's Medical Bill. A deputation was named to wait on Mr. Hawes, to ascertain, if possible, from the honourable gentleman the course he was likely to pursue with the Medical Bill brought in by him.

After some routine business, the meeting adjourned.

THE APPOINTMENT OF EXAMINERS OF THE UNIVERSITY OF LONDON.

To the Editor of THE LANCET.

SIR:—It has caused much grief to many in the profession, that discord seems to be raising its head in an institution, towards which we were looking forward with great confidence and expectation, viz., the University of London.

It was a general opinion that one of the regulations with which it started, "that the examiners in every department should be changed at certain intervals, so as to bring in the different teachers in succession," would be attended with great and manifest advantages; and that this, with other liberal intentions, would effectually exclude that jobbing monopoly and nepotism which has gradually crept into most of the medical and surgical institutions in Great Britain and the sister island.

I am sorry, therefore, to observe, that in your pages there is an attack on the council of the London University, for carrying into effect the very principle which would be followed by such good consequences. Now, if blame attaches to them, it should solely be directed to the fact of their re-electing an examiner who had already held that office a year previously.

No journal has more constantly and forcibly impressed upon the attention of the members of our profession than your own, the fact, "that a public corporate body, like the one in question, should always look to general interests rather than to private ones." Now, the origin of the resignation and complaint lately forwarded to the journals seems to be, that an examiner in the practice of medicine, *who last year displaced another*, is himself, in the present year, *not re-appointed; therefore* a newly-appointed examiner in the obstetric department immediately resigns, lest the same fate should await *him* after a certain period.

It surely would, and with justice, too. The proper view of the transaction is not taken, when it is stated as a sufficient cause for such resignation, "that a faithful and efficient discharge of the duties may be followed by *dismissal*." For the *last* word read *retirement*.

Why, it is an acknowledged principle, that this should be the case; and it is *rather too bad*, at such an early period, to attempt to compel the university to adopt the opposite rule. The argument put forward is, that because an examiner conducts himself well in the duties of his temporary office—*ergo*, displacing him after a certain time, should be looked on as affixing a stigma to his name. This may appear to be very solid

reasoning with those *who are once in*; but they should bear in mind, that there are many teachers in the several departments of the profession in London, who, on their appointment, could offer the same excuse for endeavouring to retain office, and, from their characters as teachers, would surely not be found wanting in that of examiners.

The gentleman who has lately been superseded in the office of examiner, need not fear, I will affirm, that any such stigma will attach to *him* from the circumstance. His well-known integrity and hatred of jobbing will at once preclude it. But it is well known that the change itself arose from the representations of his *predecessor*, and now *successor*, that *his* character, too, had suffered materially from his previous non-re-appointment; and it is said that his return to office depended solely on this same representation.

With the present system of half-and-half measures, therefore, the council will constantly find themselves on the horns of a dilemma, and will either feel obliged to retain, for an *indefinite* time, the same examiners, or as frequently give offence by not reappointing them; for it will not be a very common occurrence, I am afraid, that they will resign voluntarily after a certain period.

The only preventive remedy, sir, for such complaints in future, would be to enact certain regulations as to the appointment of examiners in *each* branch, and to make it *fully* understood that the duration of such appointment would be for two years, or such period as the council might appoint, and that no examiner could be reappointed until after the expiration of four or six years.

This is a very common arrangement in other public bodies, and would, at least, prevent such feelings of jealousy and offended pride as have lately evinced themselves in this affair.

It is said that an appointment as examiner, or the wish for it, occasions a vast deal of canvassing. This is not quite correct, surely, in an affair of this sort. Let the selection be made in rotation, from the different schools (beginning with the larger ones), and I feel quite sure that it would put an end to the unpleasant feelings at present existing as to the mode of appointing the different examiners. How is it, by-the-by, that we observe changes occasionally taking place in some departments and never in others? Is it owing to the favoured individuals possessing more interest at head-quarters? or that there is but one teacher who can properly examine on chemistry, materia medica, &c.? Your obedient servant,

SENEX.

May 15, 1841.

HUMANITY
AT
BETHLEM HOSPITAL.
THE NEW SURREY ASYLUM.

To the Editor of THE LANCET.

SIR:—Rumour informs me that the governors of Bethlem determined, at their last meeting, that the annual reports of their two physicians should in future be printed and published; and it is said that the proposition has the hearty concurrence of the physicians themselves, who probably feel that their reputation may be injured by the absurd secrecy with which the affairs of the hospital are at present conducted, and the unwise proceedings of the president in the late case of R. D. Shelly. This determination will be productive of the most advantageous results, as regards the settlement of the great and interesting question of the new treatment of the insane.

It is well known that the physicians of Bethlem have recently presented a most elaborate report to the governors, in which they designate the entire abolition of restraint as "a gross and palpable absurdity," the wild scheme of a philanthropic visionary, unscientific, and impossible, which may deceive for a time, but must soon be exposed; and the annals of the hospital, as to the quantity of coercion there used (as set forth in the letters of "Philanthropos"), sufficiently demonstrate that their practice accords with their theory. The physicians are, nevertheless, men of eminence, whose opinions are entitled to consideration; and legitimate means will now be afforded to them of promulgating those opinions, and presenting to the world, through the medium of their reports, the principles of their treatment and its success. They labour, indeed, under a heavy disadvantage, from the system of the hospital, which makes them *consulting* physicians only, and throws the general management upon the resident apothecary; but, notwithstanding this drawback, the reports will be valuable, and may probably lead to an improved medical arrangement.

It rejoiceth the "Looker-on," also, to learn that the governors are diligently occupied in adopting Lord Normanby's suggestions respecting employment, amusements, &c.; and that valuable reports from the matron and steward upon these subjects will soon be made public. It would seem that such reports would emanate more fitly from the medical officers, who are strangely passed by; but let us not quarrel with the instruments by which results so desirable are obtained. The governors are aroused, and the spirit of improvement is abroad, and the "Looker-on" may now hope soon to see the visions of "Philanthropos"

realised :—"The gloomy grandeur of the galleries will give way to the simple cheerfulness adapted to the habits of the patients—the gaol-like windows will be removed—the costly garden walls will be demolished—the airing grounds will be planted, and rendered cheerful—the gardens opened for the enjoyment of the patients—and the vast space in front of the two wings devoted to their use." How interesting will be the inquiry, whether, as these improvements progress, the quantity of restraint does or does not diminish!

The "Looker-on" is also anxiously watching the opening of the new asylum for Surrey, which forms so conspicuous an object from the Southampton Railway, and where, from the large farm attached to the premises, the greatest facilities will be afforded for carrying out the humane system. The proceedings of this asylum, so immediately connected with the metropolis, would, in any event, be important, but they acquire additional interest from the circumstance of the appointment of Sir A. Morrison, as the principal medical officer. The Surrey Asylum must stand forward as the generous rival of the Middlesex Asylum in the race of improvement, or as the formidable antagonist of the system it has adopted. The government of the two asylums is similar, namely, by committees of magistrates of the respective counties; the patients are identical; that is to say, pauper lunatics, labouring under every variety of the disease, from acute mania to paralytic idiotcy; exhibiting all the stages of the disorder, from its earliest attack to its confused chronic form, and having been subjected before their admission to every species of violence and coercion which brutal ignorance or sordid negligence could inflict. Coercion has not only been abandoned at Hanwell, but if the statements laid before the public are to be relied on, many patients are now actively employed, who still exhibit the marks of the fetters they have previously worn, and some are slowly recovering the use of their hands, which had been lost by perpetual restraints; but coercion must be used in Surrey, or Sir A. Morrison must give up his dogma, that "the entire abolition of restraint is a gross and palpable absurdity." If he do so, the triumph of the humane system is complete, and the fetters will fall from every unhappy lunatic in every part of the Queen's dominions. If he do not, the vicinity of the two asylums, their connection with the metropolis, and the constant intercourse between the members of the two committees, will place the rival systems fairly before the public, and give them ample opportunities of judging of their respective merits. How interesting the trial—how important the verdict! I am, Sir, your obedient servant,

May 17, 1841. A Looker-on.

BELFAST LUNATIC ASYLUM.

THE ELEVENTH REPORT OF THAT INSTITUTION.

THE HUMANE SYSTEM.

To the Editor of The Lancet.

Sir:—Dr. Stewart seems extremely anxious to correct the mistake into which the medical world has fallen, respecting his opinions on the subject of non-restraint, from the passage in his Tenth Report, quoted by Mr. Powell, in his letter, inserted in your Number of the 16th ult. I have obtained a copy of the Report just published by Dr. S., and alluded to in his letter of the 6th ult.; and I regret to find that he has fallen into the error so industriously promulgated by the advocates of the old mode of treatment, that the humane system is the mere substitution of brute force for instrumental restraint. He says, "The manager of this asylum sees no occasion whatever to change the opinion he ventured to give in his last annual Report on so exceedingly important a point of detail as that of restraint in the treatment of the furious insane; on the contrary, he feels bound to state, and that with the utmost deference to those distinguished individuals from whom he differs, that to substitute, in cases of violent mania, *a species of living terror, in the questionable form of able-bodied men, of 'not less than six feet high,' for temporary and mild physical restraint, is a proposition utterly inconsistent, not only with common sense, but also common humanity.*"

Now, with the greatest respect for Dr. Stewart, I greatly doubt whether he differs in opinion from any one distinguished individual upon this self-evident proposition. I believe the advocates of the humane system, one and all, maintain, that if the choice be between personal violence and instrumental restraint, the latter is the lesser evil. In Dr. Conolly's last Report, many pages are devoted to this subject; and there is food for thought in every sentence. The old mode of treatment (says Dr. C.) is like endeavouring to smother a fierce fire by heaping very combustible materials upon it. A maniac, in the midst of his paroxysm, like a man in a violent fit of passion, should be interfered with as little as possible. The violence, which if met by violence will become still more aggravated, will often, if left to itself, subside even in the course of five or ten minutes. To acquire confidence is the key-stone of all moral treatment, *and nothing will so much oppose its acquisition as brutal or even impatient usage during the paroxysm.* Ridiculous as it may seem, I would recommend the visiting justices of Hanwell to have the height of their nurses and keepers ascertained, and appended to their next Report, and thus at once put an end to the strange misrepresentations so

industriously circulated as to the Patagonian guardians of that celebrated asylum.*

When Dr. Stewart says, "That non-restraint is the rule, and restraint the exception, in his establishment, but that it would be a want of candour to state that the former *could be practised*, or is practised, every day in the year, with every case in the house," he must pardon me for doubting the correctness of the words in italics. The average daily number of patients in his asylum, during the year 1840, was 240; the average number in Hanwell, 835; and it has, says Dr. Conolly, "been found practicable to control every variety of case, without any fatal accident or serious outrage having occurred;" and "always (it must be remembered) with this consideration, that a change of plan, involving the minutest as well as the most important parts of discipline, is only in progress, and not yet completed."

There is much valuable information contained in this Report of Dr. Stewart, and many useful tables are appended; but I deeply regret that no table has been published, showing the quantity and nature of the restraints used in his asylum. In one of Lord Normanby's trimming letters to the president of Bethlem Hospital, he states, that in all well-regulated asylums in Ireland correct journals are kept of all restraints inflicted; and every body knows that Belfast justly maintains a very high reputation amongst them. It is sometimes said that doctors will not take their own physic; and if Dr. Stewart should favour the public in his next Report with an abstract of his restraint journal, I think he will not greatly increase its bulk. The entries in journals of this nature are, I rejoice to say, in every asylum (Bethlem included), becoming "fine by degrees, and beautifully less;" but it would be great injustice to Dr. Stewart, to rank him as a reluctant adherent to the humane system. He is an excellent man, full of intelligence, and, in practice, whatever he may write of "the dangerous hallucinations of that monomania of the present day, non-restraintism," an able supporter of moral treatment. The system is, in truth, rapidly advancing, though yet far from general adoption.

A few days ago the "Looker-on" overheard a medical man remark to his neighbour, "These people are doing a great deal of good after all; the keepers of licensed houses are becoming ashamed of their restraints, and lessening or inventing excuses for them; where a strap used to be a foot long it is now a yard; and so on: the old system seems breaking down every where." 'Tis a consummation, Mr. Editor, devoutly to be wished, and that not only as far as the insane themselves are concerned, but as regards the keepers and nurses; for, when thoroughly understood, and uniformly acted upon, the system diminishes the anxieties of the keepers and nurses, as much as it promotes the comforts of their patients. I am, your obedient servant,

A Looker-on.

May 11, 1841.

* Frequent opportunities, during the performance of judicial duties, at this asylum, enable us to support the remark of our correspondent, by saying, that amongst other things for which the establishment is remarkable, is the personal appearance and demeanour of the nurses and keepers, which are, in a high degree, superior and prepossessing, and indicate the exercise of peculiar care and judgment in the selection.

MEANS OF RESUSCITATION IN ASPHYXIA.

To the Editor of The Lancet.

Sir:—Having observed in the Number of The Lancet for 20th March last, p. 880, a valuable letter on this important subject by Mr. C. Searle, of Bath, I beg, through the medium of your pages, to draw the attention of the medical profession to an instrument which, I trust, will, on trial, effectually accomplish the most essential processes necessary to restore suspended animation. This instrument has been approved by the late Sir A. Cooper, by Sir Henry Halford, Sir James Macgregor, Sir W. Burnett, Sir J. Clarke, Sir John Webb, Drs. James Johnson, Outram, Copland, Mayo, Davies, and many other eminent gentlemen of the profession.

It appears now admitted on all hands, that death in cases of suspended animation principally ensues, in consequence of the want of the necessary mechanical means of keeping up artificial respiration with warm moist air (with an admixture of oxygen), and thereby imparting to the blood that chemical property which natural respiration effects.

To effect this, I have constructed an instrument upon the same principle as my stomach-pump. It is formed of two cylinders, each containing forty cubic inches; so that, on the ascent of the piston, forty cubic inches, or less, of air or fluid are extracted from the trachea and lungs (through a pipe lying on the tongue over the entrance of the trachea); and on the descent of the piston the same quantity of medicated warm air is passed into the trachea and lungs through the nostrils or mouth.

The medicated air is contained in an air-proof bag, to be attached to one of the cylinders. Every supply of air is pure and fresh; the air extracted from the lungs is not again returned.

It seems to me most important, that the stagnant fluid and vitiated air should be

first extracted. The first operation of this instrument, extraction, is performed by raising the piston; the second, inflation, by depressing the piston: thus establishing, through the instrument, artificial respiration for any length of time.

By suspending the action of one of the pistons, extraction or inflation may alone be carried on.

With the same instrument warm stimulants may be passed into the bowels and stomach, and with as great facility, and, perhaps, greater expedition, than by means of my stomach-pump.

In p. 49 of the Number of THE LANCET for 3rd April last, I observe another letter signed "J. Murray," in which the writer, after noticing the valuable letter of Mr. Searle, says, "I am not aware that Mr. Searle has added anything new, or that I have omitted in my pamphlet on suspended animation," and then claims "an invention wherein the syringe is substituted for the bellows;" and then adds, "I have yet to learn that this instrument (the syringe) has been in any way improved." If the writer be the same person who charged me, at the annual meeting of the Medical and Surgical Association, held at Liverpool on the 1st of August, 1839, with having, "from reading his book, manufactured a less effective and clumsier apparatus, and endeavoured to palm it upon the public as my own."—(See Supplement to Worcester Journal of 1st August, 1839.)

I beg to inform him through your columns, that I have not borrowed the invention from reading his book: my instrument was made long previously, as stated in my reply to his charge.—(See Berrows' Worcester Journal, 15th August, 1839.) It has, however, been since improved, and, as at present combined, will perform the process of inflation and extraction, or either process, without the necessity of changing the position of any part of the instrument.

JOHN READ.

35, Regent-circus, Piccadilly.

NOTE FROM DR. HOCKEN.

To the Editor of THE LANCET.

SIR:—In reply to Mr. Dalrymple's remarks* concerning the case (Eliz. Ward) of chronic hyaloiditis, allow me to suggest that I have already, in part, answered his objections; and I trust that I can readily convince that gentleman of the truth of the remaining question.

With him I am ready to acknowledge, that the infrequency of opportunities of post-mortem observation retarded, and does retard, certain knowledge of the pathology of the deeper-seated tissues; but I still maintain that accurate observation during life is most frequently sufficient.

The diagnosis of an increase in the quantity of the vitreous humour from choroiditis may be found in my third communication on amaurosis.* I there stated that in hydrophthalmia the sclerotica was dilated and thinned *uniformly*; but in choroiditis the *uniformity* was absent, the thinning being irregular; and hence the protrusion first of the ciliary ligament, and then of portions of the choroid constituting hernia sclerotiæ.

I have myself never found any difficulty in the diagnosis between an increased quantity of the vitreous humour and collections of fluid behind the retina. As Mr. Dalrymple justly remarks, the retina is in such cases thrust forwards, and eventually forms an almost solid cord in the centre of the eye. The very advance of the retina, in these cases, is a proof of their nature: I recollect watching a case in which this fact was beautifully and evidently seen, during some two or three weeks; it then became gradually diminished, and the whole globe eventually atrophied—the patient retaining imperfect vision in the organ.

Mr. Wardrop says (Morb. Anat. of Eye, p. 72), that where the fluid collects quickly, it is accompanied by severe pain in the eye and head; the pupil becomes much dilated, and when the disease has far advanced, there is the appearance of an opake body behind the lens from the retina being compressed, which in one instance was mistaken for cataract, and an attempt made to couch it.

In conclusion, I would remark that no important quantity of fluid would collect behind the retina without displacing that tunic, and causing, more or less, displacement and absorption of the vitreous humour; and that, in all such cases, the nature is self-evident, by a careful inspection through the pupil, where the *white* advancing retina may be recognised at the fundus, since the same causes which displace seem to render it (retina) opake and white.

EDWARD HOCKEN, M.D.

May 14, 1841.

* LANCET, vol. ii., 1840-41, p. 270.

PETITION.—THE VACCINATION ACT.

To the Honourable the House of Commons, in Parliament assembled,

The petition of JAMES BEDINGFIELD, M.D., and legally-qualified practitioner of Medicine and Surgery,

HUMBLY SHOWETH,

1. That your petitioner regards with high satisfaction the recent measure which has been enacted by the Legislature for the pre-

* Vide loc. cit., p. 156.

vention of that loathsome and destructive pestilence, the small-pox, and for the diffusion of its antidote.

2. That your humble petitioner, with the view of seconding the benevolent intentions of your honourable House, is willing to extend the blessing of vaccination to the mechanical and agricultural labourer, as well as to all persons standing in need of parochial relief, either gratuitously, or upon such terms as may be deemed reasonable by the boards of guardians and other parochial authorities; at the same time, your petitioner, in justice to himself and his professional brethren, feels bound to state that the scale of remuneration imposed, and through the medium of the disgraceful and demoralising system of tender ENFORCED, by the Poor-law Commissioners, bears a very inadequate proportion to the services rendered.

3. That, in the humble opinion of your petitioner, some serious, but probably unintentional, errors have been committed in the construction or wording of the legislative enactment, to which reference is made in the first clause of this petition.

4. That, in the opinion of your petitioner, the Legislature never had in contemplation the disfranchisement or pauperising of those who might unwittingly accept of the *indirect* parochial relief proffered to them in the recent enactment; neither can your petitioner persuade himself that the Legislature ever intended to control or interfere with the private practice and emoluments of medical men, by *compelling* them to vaccinate for an inadequate consideration those whose circumstances enable them to defray the ordinary and very moderate charges of the profession.

5. That, although your petitioner cannot recognise the principle of interference with his private rights, *thus* sought to be established, nor comply with the *requisition* to vaccinate the prince, the peer, the man of fortune, the merchant, the substantial yeoman, and the opulent tradesman, upon the same terms as he is willing to extend his services to the poor and necessitous; yet, impressed with the importance of rendering vaccination a continuous and uniform practice, your petitioner pledges himself to use all his influence amongst his connections to induce them to insure success to the humane intentions of the Legislature, by submitting their children to the process of vaccination within a period of six months subsequent to their birth.

6. That, in the humble opinion of your petitioner, the prejudice against vaccination which unfortunately existed in the minds of the ignorant and uneducated, previously to the passing of the Vaccination Bill, has been increased in a tenfold degree by the execution of the measure having been entrusted to the Poor-law Commissioners; and that this circumstance will prove an insuperable barrier to its universal adoption; and that, at the same time, the insolent and tyrannical conduct of these commissioners has excited in your petitioner, and in the whole profession, feelings of indignation and disgust: your petitioner, therefore, most humbly and respectfully suggests to your honourable House that the future conduct of the measure may be taken out of the hands of the commissioners, and intrusted to Mr. Ceely, of Aylesbury; whose indefatigable and philosophical researches into the *nature* and *protective* properties of the cow-pox so superlatively qualify him for the office, and whose distinguished service to science and humanity eminently entitle him to national distinction and reward; and your petitioner as in duty bound will ever pray.

J. BEDINGFIELD.

Stowmarket, Suffolk, May 15, 1841.

CHEMISTS AND DRUGGISTS.

To the Editor of THE LANCET.

SIR:—The Bill for "Medical Reform," now before the House of Commons, has created great sensation amongst the profession; and the respectable members of that profession are generally dissatisfied at the omission of "chemists and druggists" in the Bill. It is usual for these tradesmen to usurp the profits of the medical man, by keeping one on their premises in *their pay*. Corbyn and Co., Foulger, &c., have, without any medical education *themselves*, kept a surgeon and apothecary in their house from morn till night; and thus contrived to get money as surgeons and apothecaries, as well as in their trade of druggists, oilmen, and drysalters. Why should not a grocer, cheesemonger, or barber, do the same thing?

The shopkeepers at Apothecaries' Hall are in the field to oppose any improvement. These gents. do not sell less than threepennyworth of any article by retail; and it is only within ten years that they have opened a retail shop: they have now an excellent business in making up horse and cow and dog medicine. They also contract to fit up medicine-chests. Students should no longer be examined by these shopkeepers, but by a board of more respectable and competent persons, with salaries sufficient to maintain them independent of practice.

I am of opinion, also, that the three branches of the profession should be kept distinct, and each under a different class. Let the surgeon be a surgeon, the apothecary an apothecary, &c., and their respective fees defined. Let the druggists, both at Apothecaries' Hall and elsewhere, make up their prescriptions; let each practitioner sign his name to his prescription; let each one, also, take out an annual licence to prac-

tise, as is the case with solicitors; and any one presuming to practise, not being duly qualified, under certain penalties to be recovered by information, or otherwise.

This latter clause would affect the rights of chemists and druggists, from time immemorial, to injure the public health, and swindle the medical profession.

Neither should any medical man be allowed to deal in drugs, nor make up prescriptions—this would be giving to the druggist something by way of recompense.

Let it be compulsory upon members of a board, to call at all shops vending drugs *frequently*, and without notice, to examine the drugs, weights, &c.; and let this board be paid, and armed with certain powers for protecting the public. There are far more spurious than genuine drugs now vended in shops; and death and serious illnesses have arisen from the ignorance and boyish tricks and from the drunkenness of druggists and their shopmen.

I know now an oilman who has vended drugs, who intends to keep an apothecary in his house: is this legal? If a chemist and druggist, unqualified, has a right to practise (quod facit per alium, facit per se), why not any other tradesman.

I trust your enlightened mind will insist upon those terms which shall protect the medical profession, regardless of the impudent pretensions of chemists, druggists, quacks, and nostrum-venders, by defining the qualifications, and requiring a licence annually.

It is urged by some chemists and druggists, that they do not so much injure medical men, because they confine themselves to *patients* at home, and do not visit out of their doors; if they are qualified to cure at home, they are equally qualified to cure *abroad*; if unqualified to go out, they are unqualified to cure at home.

I address these suggestions to you, because medical men look to you for proposing and carrying in committee, clauses which will protect their interests, and add to your already well-earned fame.

This sketch is hastily written, and not so perfect as if I had more leisure. I have the honour to be, Sir,

A Voter for Reform.

Chemists and druggists should be examined as to their knowledge in chemistry, &c.: this they strenuously object to, for many of them have been porters only and doctors' boys, and cannot write their names.

March 1, 1841.

MR. KING AND MR. HILTON.

To the Editor of The Lancet.

Sir:—Reading in your valuable Publication of last week a letter from "A Medical Student" of Guy's Hospital, complaining of neglect on the part of the lecturers on morbid anatomy in that school; and not only of neglect, but touching on the private character of one of them—I mean Mr. King.

1st. I must beg leave, with respect to Mr. King's introductory lecture, most positively to contradict that there were only two students present; twenty, I believe, was the lowest number.

2nd. With regard to Mr. King's treating the students in the manner described by the gentleman signing himself "A Medical Student," I must beg leave to say, that I believe, and no doubt others would join me in that belief, that Mr. King is quite the contrary person to what the student has represented him; and that he, Mr. King, does the utmost in his power to promote the views and interests of the students of Guy's Hospital.

Why our worthy and respected demonstrator of anatomy, Mr. Hilton, is mentioned with disrespect, I am quite at a loss to know; for I am sure that all the students (barring the aforesaid medical student) will cordially join me in saying, that a teacher more desirous of furthering their views—more indefatigable in his endeavours to render them his assistance, does not exist in the hospital than Mr. Hilton. I can only add in conclusion, that I suppose the gentleman who calls himself a medical student, is one of the half-and-half gentlemen, which appears to be a favourite beverage with, &c. &c.* I remain, Sir, your most obedient servant,

Fair Play.

Guy's Hospital, May 18, 1841.

Anatomical Models.—The Society of Arts, at a late meeting, voted their gold Isis medal to Mr. Simpson, Surgeon to the Westminster General Dispensary, for the application of papier mâché to the making of anatomical figures and models of morbid anatomy.

TO CORRESPONDENTS.

What does *A. W.* mean by "the medical board?" There is no collection of gentlemen under that title in London.

We shall willingly receive communications of the kind referred to by *Mr. Prowse*.

Mr. Gravenor could only have proved that when he was called in the woman was dead. It is not allowed to "advance pathology" at the expense of the county. The evidence was sufficient to enable the jury to discharge the duty for which they had met.

The letter of *Mr. N. Hanson* was received.

J. L.—Certainly not. The Act relates to persons who were in *actual practice* as apothecaries before August, 1815.

* We omit the rest.—Ed. L.